

Cincom

AD/ADVANTAGE

Programming

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AD/Advantage® Programming

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About this book

Using this document

MANTIS is an application development system that consists of design facilities (e.g., screens and files) and a programming language. This manual describes the application generation environment within AD/Advantage.

Document organization

The information in this manual is organized as follows:

Chapter 1—AD/Advantage overview

Provides an overview of AD/Advantage features and architecture.

Chapter 2—Getting started using AD/Advantage

Discusses basic principles you need to know as you get started using AD/Advantage.

Chapter 3—Designing applications: a step-by-step guide

Describes the steps to defining a transaction for each of your programs, including specifying all program parameters and generation defaults.

Chapter 4—Defining and editing transactions

Describes how to define and edit transactions.

Chapter 5—Listing transactions

Describes how to display and list transactions.

Chapter 6—Generating transactions

Describes how to use generation transactions to generate the program and screen defined in your transaction.

Chapter 7—Accessing MANTIS facilities

Describes how to initialize the Entity Transformer Scratchpad and access MANTIS facilities

Appendix A—Transactions listed by product function

Provides a table to find transactions listed by product function.

Appendix B—System parameter formats

Shows the formats for system function calls and for the SYST parameter.

Appendix C—Using AD/Advantage with DL/I

Explains which DL/I entities are required in order to use AD/Advantage with DL/I. It also explains how to run the DL/I generator.

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Conventions

The following table describes the conventions used in this document series:

Convention	Description	Example
Constant width type	Represents screen images and segments of code.	Screen Design Facility GET NAME LAST INSERT ADDRESS
Yellow-highlighted, red code or screen text	Indicates an emphasized section of code or portion of a screen.	00010 ENTRY COMPOUND 00020 .SHOW"WHAT IS THE CAPITAL AMOUNT?" 00030 .OBTAIN INVESTMENT 00040 EXIT
Slashed b (b̸)	Indicates a space (blank). The example indicates that a password can have a trailing blank.	WRITEPASSb̸
Brackets []	Indicate optional selection of parameters. (Do not attempt to enter brackets or to stack parameters.) Brackets indicate one of the following situations. A single item enclosed by brackets indicates that the item is optional and can be omitted. The example indicates that you can optionally enter a program name. Stacked items enclosed by brackets represent optional alternatives, one of which can be selected. The example indicates that you can optionally enter NEXT, PRIOR, FIRST, or LAST. (NEXT is underlined to indicate that it is the default.)	COMPOSE [program-name] <div><div>NEXT PRIOR FIRST LAST</div></div>

Convention	Description	Example
Braces { }	<p>Indicate selection of parameters. (Do not attempt to enter braces or to stack parameters.) Braces surrounding stacked items represent alternatives, one of which you must select.</p> <p>The example indicates that you must enter FIRST, LAST, or a value for <i>begin</i>.</p>	<div><div>FIRST</div><div><i>begin</i></div><div>LAST</div></div>
<u>Underlining</u> (In syntax)	<p>Indicates the default value supplied when you omit a parameter.</p> <p>The example indicates that if you do not specify ON, OFF, or a row and column destination, the system defaults to ON.</p>	<div>SCROLL<div><div>ON</div><div>OFF</div><div>[<i>row</i>] [<i>col</i>]</div></div></div>
	<p>Underlining also indicates an allowable abbreviation or the shortest truncation allowed.</p> <p>The example indicates that you can enter either PRO or PROTECTED.</p>	<div>PROTECTED</div>
Ellipsis points...	<p>Indicate that the preceding item can be repeated.</p> <p>The example indicates that you can enter (A), (A,B), (A,B,C), or some other argument in the same pattern.</p>	<div>(<i>argument</i> , ...)</div>

Convention	Description	Example
UPPERCASE	<p>Indicates MANTIS reserved words. You must enter them exactly as they appear.</p> <p>The example indicates that you must enter CONVERSE exactly as it appears.</p>	CONVERSE <i>name</i>
<i>Italics</i>	<p>Indicate variables you replace with a value, a column name, a file name, and so on.</p> <p>The example indicates that you can supply a name for the program.</p>	COMPOSE [<i>program-name</i>]
Punctuation marks	<p>Indicate required syntax that you must code exactly as presented.</p> <p>() parentheses . period , comma : colon ; semicolon ' single quotation mark " " double quotation marks</p>	$[\text{LET}]_v \begin{bmatrix} (i) \\ (i, j) \end{bmatrix} [\text{ROUNDED}(n)] = e1 [, e2, e3 \dots]$

MANTIS documentation series

MANTIS is an application development system designed to increase productivity in all areas of application development, from initial design through production and maintenance. MANTIS is part of AD/Advantage, which offers additional tools for application development. Listed below are the manuals offered with MANTIS in the IBM® mainframe environment, organized by task. You may not have all the manuals listed here.

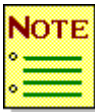
MASTER User tasks

- ◆ *MANTIS Installation, Startup, and Configuration, MVS/ESA, OS/390, P39-5018*
- ◆ *MANTIS Installation, Startup, and Configuration, VSE/ESA, P39-5019*
- ◆ *MANTIS Administration, OS/390, VSE/ESA, P39-5005*
- ◆ *MANTIS Messages and Codes, OS/390, VSE/ESA, P39-5004**
- ◆ *MANTIS Administration Tutorial, OS/390, VSE/ESA, P39-5027*
- ◆ *MANTIS XREF Administration, OS/390, VSE/ESA, P39-0012*

General use

- ◆ *MANTIS Quick Reference, OS/390, VSE/ESA, P39-5003*
- ◆ *MANTIS Facilities, OS/390, VSE/ESA, P39-5001*
- ◆ *MANTIS Language, OS/390, VSE/ESA, P39-5002*
- ◆ *MANTIS Program Design and Editing, OS/390, VSE/ESA, P39-5013*
- ◆ *MANTIS Messages and Codes, OS/390, VSE/ESA, P39-5004**
- ◆ *AD/Advantage Programming, P39-7001*
- ◆ *MANTIS DB2 Programming, OS/390, VSE/ESA, P39-5028*

- ◆ *MANTIS SUPRA SQL Programming, OS/390, VSE/ESA*, P39-3105
- ◆ *MANTIS XREF, OS/390, VSE/ESA, OpenVMS*, P39-0011
- ◆ *MANTIS Entity Transformers*, P39-0013
- ◆ *MANTIS DL/I Programming, OS/390, VSE/ESA*, P39-5008
- ◆ *MANTIS SAP Facility, OS/390, VSE/ESA*, P39-7000
- ◆ *MANTIS WebSphere MQ Programming*, P39-1365
- ◆ *MANTIS Application Development Tutorial, OS/390, VSE/ESA*, P39-5026



Manuals marked with an asterisk (*) are listed twice because you use them for both MASTER User tasks and general use tasks.

Educational material

AD/Advantage and MANTIS educational material is available from your regional Cincom education department.

1

AD/Advantage overview

AD/Advantage integrates and provides easy access to the components of AD/Advantage and MANTIS. By standardizing the application development process, AD/Advantage increases the speed of developing AD/Advantage, MANTIS and 3GL applications.

AD/Advantage features

AD/Advantage provides these features for faster, easier application development:

- ◆ **Standard application user interface.** Includes *transactions* and *menus*.
- ◆ **Application generator.** For single, list, and mixed programs. AD/Advantage allows you to generate applications from database definitions in the following databases:

Operating system	Database
MVS, OS/390, z/OS	DB2
	DL/I
	SUPRA PDM
	SUPRA RDM
	SUPRA SQL
	VSAM
VSE	DL/I
	DB2 for VSE and VM (formerly SQL/DS)
	SUPRA PDM
	SUPRA RDM
	SUPRA SQL
	VSAM
Windows	SUPRA SQL (client only)
	VSAM emulation
UNIX	C-ISAM
	MISAM
	Oracle
	SUPRA PDM
	SUPRA SQL
Open/VMS	RMS
	RDB
	SUPRA PDM
	SUPRA RDM
	SUPRA SQL

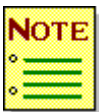
- ◆ **Program templates.** AD/Advantage comes supplied with several default templates which include all standard program elements. When you generate an application, the templates automatically insert standard programming code into the application for you.
- ◆ **Transaction and field-level help.** You can access online help for system transactions and fields. You can also write transaction and field-level help for the applications you develop.
- ◆ **Dynamic field validation.** Uses the validation rules you define in AD/Advantage, or those already defined in your database.
- ◆ **End-user sign-on.** Called a *personal ID*, which is defined to a MANTIS user and to which transactions are authorized. (You can define an unlimited number of personal IDs.) You can also create groups of personal IDs and authorize transactions for each group.
- ◆ **Support for multi-language applications,** which conform to NLS (National Language Support) Standards. The default system language is U.S. English (ENU). Contact your local Cincom representative for other languages supported by AD/Advantage.

Transactions

AD/Advantage uses *transactions* as the standard means of running your programs. You create a program using AD/Advantage, MANTIS, or a 3GL language such as COBOL or C, and then you define an AD/Advantage transaction for the program. Similarly, each AD/Advantage system program is defined as a transaction.

Transaction IDs

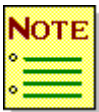
A *transaction ID* is an identification code you assign when you define a transaction in AD/Advantage. The transaction ID allows you to run the program at the AD/Advantage command line, as opposed to selecting the program from a menu.



The transaction IDs for *system transactions* (those transactions installed with AD/Advantage) begin with a special character—the default is a hash character (#), although your system administrator may have changed this at installation. All *non-system transactions* (user-defined transactions) can begin with any character other than the special character assigned to system transactions.

Transaction pathing

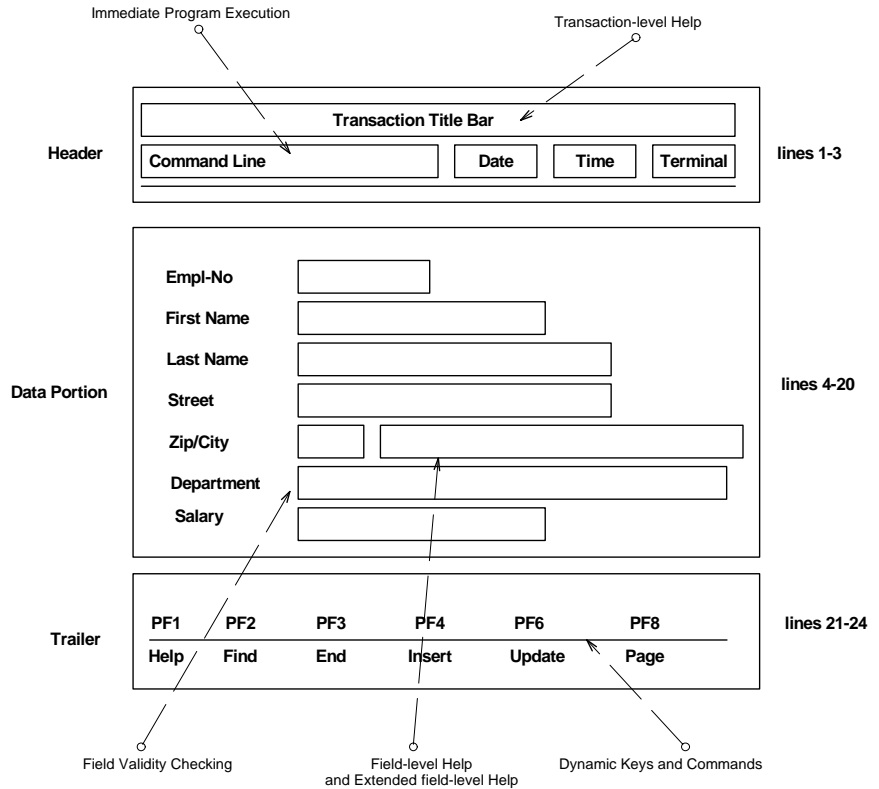
As you navigate through AD/Advantage, the system tracks which transactions you have accessed and the order in which you have accessed them. We call this record your *transaction path*. By pressing the Exit key, you can retrace your transaction path and back up through the transactions you previously accessed.



When you define a transaction, you can disable transaction pathing for that transaction.

Standard user interface

All AD/Advantage transactions have a *standard user interface*, as the following figure illustrates:



The standard user interface contains the following main parts:

- ◆ **Header.** The header area contains three lines. The title of the transaction and the transaction ID display on the first line. The second line contains the command line and the Date, Time, and Terminal fields. The third line is a separator line.
- ◆ **Data portion.** The data portion is reserved for data specific to your application.
- ◆ **Trailer.** The trailer is reserved for displaying user messages and keys and their descriptions.



For user applications you can customize the header and trailer for your company. The screens are stored in the MANTIS MASTER user under ADV_HEADER and ADV_TRAILER.

Using AD/Advantage transactions

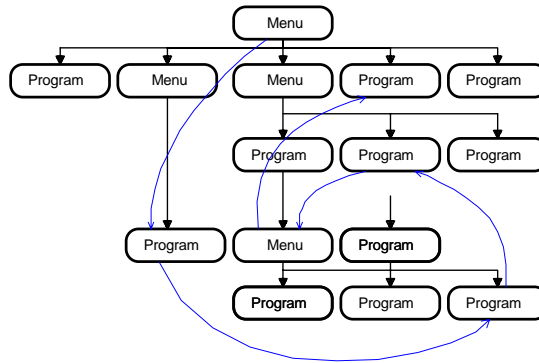
In developing and maintaining AD/Advantage applications you should know how to do the following:

To	See
Define and edit transactions	"Defining and editing transactions" on page 123.
List transactions	"Listing transactions" on page 181.
Generate transactions	"Generating transactions" on page 273.
Print transactions	"Printing transactions" on page 282.
Initialize the Entity Transformer Scratchpad	"Initializing the Entity Transformer Scratchpad #ETI" on page 297.
Run MANTIS and AD/Advantage facilities	"Accessing MANTIS facilities" on page 297.

Dynamic menu subsystem

We call AD/Advantage's menu subsystem *dynamic* for the following reasons:

- ◆ It keeps a record of your transaction path.
- ◆ It allows you to *fast path* to menu options at the lower levels of a menu hierarchy. This means you can immediately access an option without having to go down through the hierarchy of options to get to it. For example:

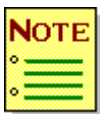


We call this method of navigating *expert mode*.

Dynamic help subsystem

AD/Advantage's *dynamic help subsystem* allows easy access to online help information for all system transactions:

- ◆ **Transaction-level help.** Summarizes how and when to use a transaction, and often includes general considerations about the transaction.
- ◆ **Field-level help.** Provides a definition of an individual field on an AD/Advantage screen. It often includes information about the format of that field.



To create transaction-level help for the applications you develop, use the #HLP transaction (see “[Transaction-level help #HLP](#)” on page 177). To create field-level help for the applications you develop, use the #DHLP transaction (see “[Domain help information #DHLP](#)” on page 136).

- ◆ **Extended field-level help.** Provides the valid options for a field.
- ◆ **Command line help.** Explains how to use the command line to navigate through AD/Advantage.
- ◆ **Command and key help.** Displays valid AD/Advantage commands and keys for the current transaction



For detailed information on how to use the dynamic help subsystem, see “[Getting help](#)” on page 57.

Dynamic field validation

A *domain* is a set of valid values you can enter in a field. When you insert or update information in a transaction, the system checks the value you enter in a particular field against the domain definition for that field and either accepts the data or returns an error message. This is called *dynamic field validation*.



For more information about defining and editing domain definitions, see “[Domain Definitions Screen #DDEF](#)” on page 125.

Templates and generators

The AD/Advantage *templates* contain standard programming code required for single, list, and mixed processing. Templates reduce the amount of effort you spend duplicating common code and debugging applications. AD/Advantage’s *generators* use the templates to generate your programs.

End-user sign-on: AD/Advantage personal IDs

The system administrator defines an end-user sign-on, called a *personal ID*, to allow individual users access to particular transactions. This feature provides maximum system security because it brings security to the individual level rather than stopping at the system or group level.

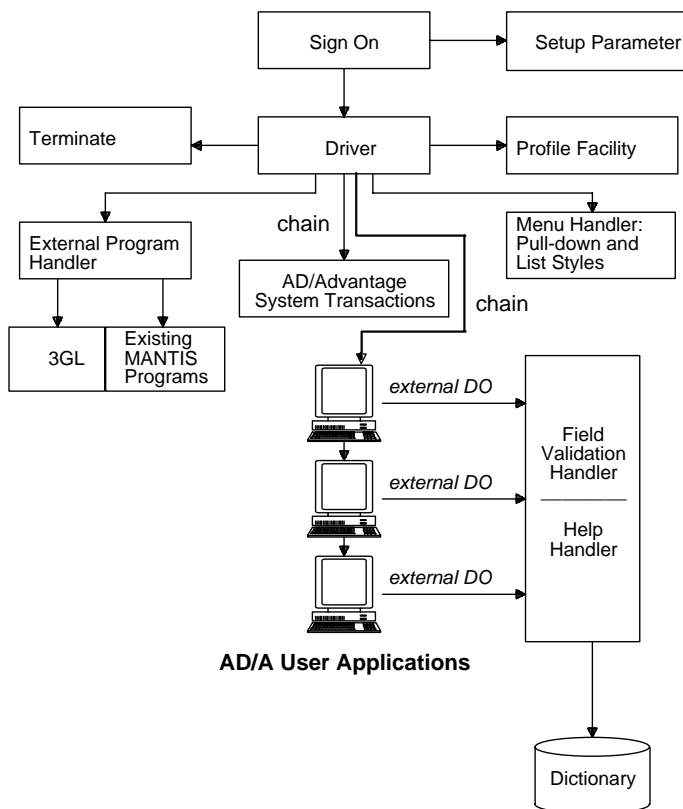
Support for multi-language applications

Contact your local Cincom representative for other languages supported by AD/Advantage.

AD/Advantage architecture

The following figure illustrates the AD/Advantage architecture. As the diagram demonstrates, the AD/Advantage *driver* controls the system. The driver performs the following functions:

- ◆ Navigates between programs.
- ◆ Calls external programs.
- ◆ Calls the menu handler.
- ◆ Calls the personal profile facility.
- ◆ Maintains the transaction path.
- ◆ Maintains the transaction's audit trail.
- ◆ Validates keys and commands.
- ◆ Controls transaction security.



2

Getting started using AD/Advantage

The following sections discuss basic principles you need to know as you get started using AD/Advantage.

Signing on to AD/Advantage

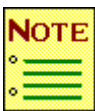
In addition to signing on from your operating system, AD/Advantage allows you the flexibility to change your sign on from *within* AD/Advantage.

For information on signing on from your operating system, see “[Signing on from your operating system](#)” on page 29. For information on signing on from within AD/Advantage, see “[Signing on from within AD/Advantage #SIGNON](#)” on page 32.

Signing on from your operating system

To sign on to AD/Advantage from your operating system type MANT at the directory prompt:

- ◆ **Mainframe, OpenVMS, and UNIX users:** At the directory prompt, enter MANT.
- ◆ **PC users:** At the directory prompt, enter MANTIS.



The system administrator can customize the sign-on procedure from the operating system. If the above guidelines do not apply to your version of AD/Advantage, contact your system administrator for assistance.

When you start AD/Advantage from your operating system, the AD/Advantage sign-on screen displays:

[illegible]

Your system administrator will provide you with a personal ID and password. Your personal ID is defined to a MANTIS user. To sign on, type your personal ID and password (enter your password in Uppercase) in the ID and Password fields. If you want to go directly to a particular transaction, type the transaction ID in the Transaction to be started field. Press ENTER.



You cannot sign on to AD/Advantage with a MANTIS user and password. The only exception to this is the MANTIS MASTER user.

The Main Selection menu displays:

====>

command line

Main Selection (#SYS)

YYYY.MM.DD HH:MM PC-

#EDIT

#LIST

#UTILITY

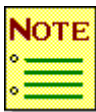
#GEN

#OPTIONS

#REPORTS

F1-----F3-----F7-----F8-----F12-----F17-----F18-----CANCEL-----

HELPEXITBWD FWD PROFILE PREV NEXT QUIT



The previous figure illustrates the *default* Main Selection menu. How your Main Selection menu looks depends on how your system administrator has configured AD/Advantage.

If the Main Selection menu does not display when you sign on, it means one of the following:

- ◆ From the sign-on screen, you bypassed the Main Selection menu by typing a transaction ID in the Transaction to be started field.
- ◆ Your system administrator set your personal ID to start at a specific transaction ID.
- ◆ The MANTIS user you wanted to sign on to has a start facility program different than the VPF:ADV_START_FACILITY program.

For more information about the AD/Advantage Main Selection menu, see “[The Main Selection menu](#)” on page 38.

Signing on from within AD/Advantage #SIGNON

In addition to the initial sign on from your operating system, AD/Advantage allows you the flexibility to change your sign-on from within AD/Advantage.

Signing on from within the AD/Advantage is an especially useful feature because some system transactions do not activate updated information until you sign on to the system again. This feature allows you to continue using AD/Advantage without having to first exit the system to sign on again.

To sign on again from within AD/Advantage, access the #SIGNON transaction. The #SIGNON transaction allows you to enter one of the following formats at the command line:

#SIGNON

This format displays the AD/Advantage sign-on screen.

#SIGNON.personal-id.password

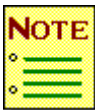
This format bypasses the sign-on screen and goes immediately to the start transaction assigned to your personal ID. For more information about start transactions, see “[Accessing your start transaction #HOME](#)” on page 53.

#SIGNON.personal-id.password.trans-id

This format bypasses the sign-on screen and start transaction and goes directly to the transaction you specify.

#SIGNON.personal-id.password.trans-id.parm1.parm2

This format bypasses the sign-on screen and start transaction, goes directly to the transaction you specify and passes the parameters to the transaction.



Your system administrator defines which character the system recognizes as the delimiter between transactions and their parameters. A period (.) is the default. For more information about passing parameters to transactions, see “[Passing parameters to transactions](#)” on page 42.

Altering your personal profile

Most of the details associated with your personal ID are collectively referred to as your *personal profile*. You can view your personal profile from any transaction by entering PROFILE at the command line or pressing the Profile key.

Your personal profile looks similar to the following:

Personal ID.....	DEVELOP	Associated Groups
Mantis-User.....	EXAMPLES	DEVELOP
First Name.....	DEVELOPER	
Last Name.....	USER	
Old Password.....		
New Password.....		
Verify New Password....		
Printer-ID.....	PRIN	
Language.....	ENU	

You can change the following items in your personal profile:

- ◆ First name
- ◆ Last name
- ◆ Password
- ◆ Printer ID

Personal ID

Description *Display.* Specifies your personal ID.

Associated Groups

Description *Display.* Specifies all user groups in which you are included.

Mantis-User

Description *Display.* Specifies the MANTIS user to which your personal ID is assigned.

First Name

Description *Optional.* Specifies your first name.

Format 1–20 alphanumeric characters

Last Name

Description *Optional.* Specifies your last name.

Format 1–30 alphanumeric characters

Old Password

Description *Optional.* Specifies your current password.

Format 1–16 alphanumeric characters

Consideration The value in this field is not visible.

New Password

Description *Optional.* Specifies a new password.

Format 1–16 alphanumeric characters

Consideration The value in this field is not visible.

Verify New Password

Description *Optional.* Verifies the new password you typed in the New Password field.

Format 1–16 alphanumeric characters

Consideration The value in this field is not visible.

Printer-ID

- Description** *Optional.* Specifies your printer ID.
- Options** *printer name* Sends your printout to the printer or file specified here.
- SCREEN Displays your printout on the screen.

Language

- Description** *Display.* Specifies the language defined for your personal ID.



The default system language is U.S. English (ENU). Contact your local Cincom representative for other languages supported by AD/Advantage.

General consideration

Your system administrator can change all of the values in your personal profile, including those that you can and cannot modify. The system administrator can also view any changes you make to your personal profile, including your password.

Navigating in AD/Advantage

AD/Advantage provides two primary techniques for navigating: *menus* and *transaction IDs*. No matter which navigating method you prefer, you'll do much of your navigation at the AD/Advantage *command line*. The command line displays in the upper left-hand corner of every AD/Advantage screen. It looks like this: ==>. The command line allows you to:

- ◆ Enter menu selections.
- ◆ Enter transaction IDs instead of going down menu hierarchies.
- ◆ Pass parameters to transactions.
- ◆ Enter commands instead of pressing keys.
- ◆ Access and select from a list of available transactions.

Navigating with menus

All of the system transactions you are authorized to access are available from your AD/Advantage Main Selection menu. You can assign the applications you develop to the Main Selection menu, or you can create your own menus. For information on how to create a menu, see "[Menu definitions #MENU](#)" on page 142.

AD/Advantage supports two menu formats: *pull-down menus* and *list menus*. The system administrator determines the menu format for AD/Advantage systemwide. "[The Main Selection menu](#)" on page 38 and "[Using pull-down menus](#)" on page 38 describe the Main Selection menu and AD/Advantage's menu formats.

The Main Selection menu

When you sign on to AD/Advantage, the Main Selection menu usually displays. If it does not display, it means that one of the following occurred:

- ◆ From the sign-on screen, you bypassed the Main Selection menu by typing a transaction ID in the Transaction to be started field.
- ◆ Your system administrator set your personal ID to start at a specific transaction ID.

Developers normally enter the system at the #SYS transaction. You can access the Main Selection Menu from any AD/Advantage screen by entering the #SYS transaction ID at the command line.

Using pull-down menus

Pull-down menus are the AD/Advantage default. The following figure shows the Main Selection menu in pull-down format:

====>

Main Selection (#SYS)

YYYY.MM.DD HH:SS PC-20

#EDIT#LIST#UTILITY#GEN#OPTIONS#REPORTS

F1-----F3-----F7-----F8-----F10-----F12-----F17-----F18-----CANCEL-
HELPEXITBWD FWD EXHELP PROFILE PREV NEXT QUIT

Notice that the submenus, #EDIT, #LIST, #UTILITY and so on, are in the *action bar*. You can access the submenus in the following ways:

- ◆ Press TAB to position the cursor on the submenu of your choice, and then press ENTER to display the pull-down menu.
- ◆ Type the submenu's transaction ID at the command line and press ENTER to display the pull-down menu.
- ◆ Use the Forward key to move forward through the submenus, or the Backward key to move backward through the submenus.

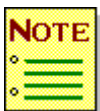
For example, the Edit Functions submenu (#EDIT) looks like this in pull-down format:

```

====>                                     Main Selection (#SYS)                                     YYYY.MM.DD HH:SS PC-20
-----
[ #EDIT ]  [ #LIST ]  [ #UTILITY ]  [ #GEN ]  [ #OPTIONS ]  [ #REPORTS ]
-----
+-----+
-| Edit Functions                                     |-----+
| 1 Edit Programs                                     |
| 2 Edit Screens                                     |
| 3 Edit Internal Files                             |
| 4 Edit External Files                             |
| 5 Edit Interfaces                                 |
| 6 Edit Prompters                                  |
| 7 Edit PDM Views                                  |
| 8 Edit DLI Views                                  |
+-----+
| 9 Edit Transaction Definitions                     |
| 10 Edit Menu Definitions                           |
| 11 Edit Synonyms                                  |
| 12 Edit Prototype Definitions                     |
| 13 Edit Transaction Help                           |
F| 14 Edit Domain Definitions                         |-----F17-----F18-----CANCEL-
H| 15 Edit Domain Help Information                   |FILE  PREV      NEXT      QUIT
+-----+

```

To choose an item from a pull-down submenu, type the appropriate number at the command line and press ENTER.



You can display a pull-down submenu from any AD/Advantage screen by entering the submenu's transaction ID at the command line.

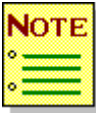
Using list menus

The following screen shows the Main Selection menu in list format:

```
====>                                Main Selection (#SYS)                                YYYY.MM.DD HH:SS PC-20
-----
1  Edit Functions ...                  (#EDIT)
2  List Functions ...                 (#LIST)
3  Utilities ...                      (#UTILITY)
4  Generation Functions ...           (#GEN)
5  Options ...                        (#OPTIONS)
6  Reports ...                        (#REPORTS)

F1-----F3-----F7-----F8-----F10-----F12-----F17-----F18-----CANCEL-
HELP      EXIT      BWD      FWD      EXHELP    PROFILE  PREV      NEXT      QUIT
```

Notice that the submenus, Edit Functions, List Functions, Utilities, and so on, are in list format. For example, if you want to get to the Edit functions, select number 1. AD/Advantage redraws your screen, displaying the Edit Functions menu. You can then select the number of your next choice. No pull-down menus display.



The three periods (. . .) behind an option indicate that this is a menu item itself.

The Edit Functions list submenu looks like this:

```

                                Edit Functions (#EDIT)
=====
====>                                YYYY.MM.DD HH:SS PC-
-----
      1 Edit Programs                (#PRG)
      2 Edit Screens                 (#SCR)
      3 Edit Internal Files          (#INT)
      4 Edit External Files          (#EXT)
      5 Edit Interfaces              (#INF)
      6 Edit Prompters               (#PRO)
      7 Edit Total Views             (#TOT)
      8 Edit DLI Views               (#DLI)
      -----
      9 Edit Transaction Definitions  (#TRN)
     10 Edit Menu Definitions         (#MENU)
     11 Edit Synonyms                (#SYNONYM)
     12 Edit Prototype Definitions    (#PTYPE)
     13 Edit Transaction Help         (#HLP)
     14 Edit Domain Definitions       (#DDEF)
     15 Edit Domain Help Information  (#DHLP)
      -----
F1-----F3-----F7-----F8-----F12-----F17-----F18-----CANCEL-----
HELP      EXIT      BWD      FWD      PROFILE  PREV      NEXT      QUIT

```

To choose an item from a list menu, type the appropriate number or transaction ID at the command line and press ENTER.

Navigating with transaction IDs

Once you are somewhat familiar with AD/Advantage, you can use the fast path method and bypass AD/Advantage's menus. Although you can still use AD/Advantage's menus if you like, and even create menus for the transactions you develop, you have the flexibility to navigate simply by entering transaction IDs at the command line.

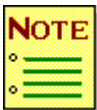
The versatility of navigating with transaction IDs is not limited to entering transaction IDs alone. You can also:

- ◆ Pass parameters to transactions.
- ◆ Leave a transaction and preserve the contents for when you later return.
- ◆ Display and select from a list of the transactions you are authorized to use.
- ◆ Assign a synonym to a transaction and use it instead of the transaction ID.

Passing parameters to transactions

Rather than simply entering transaction IDs at the command line, you can also pass parameters to transactions at the same time you enter the transaction ID. To pass parameters to a transaction, use this syntax:

trans-id.parm1[.parm2.parm3]



A period (.) is the default delimiter for separating transaction IDs and parameters; however, your system administrator may have changed this character.

Passing parameters to transactions allows you to:

- ◆ Access an edit transaction and immediately display a specific record.
- ◆ Access a list transaction and immediately display the list from a specific record.
- ◆ Sign on—as yourself or as another user—from within AD/Advantage. (For detailed information, see “[Signing on from within AD/Advantage #SIGNON](#)” on page 32.)

For lists of all system transactions and their parameters, see “[Transactions listed by product function](#)” starting on page 321.

Example. Suppose you want to look at the menu definition for the Main Selection menu (#SYS). To do this by standard navigation, first access #MENU, and then use the Forward key to bring up the record for #SYS. Here are the steps you would take:

- 1. Enter #MENU at the command line (this could be from any AD/Advantage screen):

====> #MENU

Main Selection (#SYS)

YYYY.MM.DD HH:MM PC-

#EDIT

#LIST

#UTILITY

#GEN

#OPTIONS

#REPORTS

F1-----F3-----F7-----F8-----F10-----F12-----F17-----F18-----CANCEL-

HELPEXITBWD FWD EXHELP PROFILE PREV NEXT QUIT

The following Edit Menu Definitions (#MENU) screen displays:

====>

Edit Menu Definitions (#MENU)

YYYY.MM.DD HH:MM PC-

Menu-ID... _____

Trans-ID... _____

F1-----F2-----F3-----F4-----F5-----F6-----F8-----F9-----F10-----

HELPEDITEXITINSUPDDELFWDPRINTEXHELP

2. Type #SYS in the Menu-ID field and press the Forward key, as shown in the following screen:

```

Edit Menu Definitions (#MENU)
====>                                YYYY.MM.DD HH:MM PC-
-----
Menu-ID.... #SYS                      ENU Subsystem ADV
Trans-ID... _____
_____
_____
_____
_____
_____
_____
_____
_____
_____
F1-----F2-----F3-----F4-----F5-----F6-----F8-----F9-----F10----
HELP      EDIT      EXIT      INS      UPD      DEL      FWD      PRINT     EXHELP

```

The system displays the following menu definition for #SYS:

```

=====
                                YYYY.MM.DD HH:MM PC-
-----
Menu-ID.... #SYS_____ Main Selection_____ ENU Subsystem ADV
Trans-ID... #EDIT_____ Edit Functions
              #LIST_____ List Functions
              #UTILITY___ Utilities
              #GEN_____ Generation Functions
              #OPTIONS___ Options
              #REPORTS___ Reports
              _____
              _____
              _____
              _____
              _____
              _____
F1-----F2-----F3-----F4-----F5-----F6-----F8-----F9-----F10-----
HELP      EDIT      EXIT      INS      UPD      DEL      FWD      PRINT     EXHELP
=====

```

In contrast, by passing a parameter to the #MENU transaction, you can view the #SYS menu definition in just one step, rather than the two we just described. Just type #MENU.#SYS at the command line. Then, when the #MENU screen displays, it immediately displays the menu definition for #SYS. Here's how:

Enter #MENU.#SYS at the command line (this could be from any AD/Advantage screen):

====> #MENU.#SYS

Main Selection (#SYS)

YYYY.MM.DD HH:MM PC-

#EDIT

#LIST

#UTILITY

#GEN

#OPTIONS

#REPORTS

F1-----F3-----F7-----F8-----F10-----F12-----F17-----F18-----CANCEL-

HELPEXITBWD FWD EXHELP PROFILE PREV NEXT QUIT

The system displays the following menu definition for #SYS:

====>

Edit Menu Definitions (#MENU)

YYYY.MM.DD HH:MM PC-

Menu-ID... #SYS Main Selection

Trans-ID... #EDIT Edit Functions

#LIST List Functions

#UTILITY Utilities

#GEN Generation Functions

#OPTIONS Options

#REPORTS Reports

F1-----F2-----F3-----F4-----F5-----F6-----F8-----F9-----F10-----

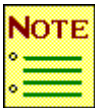
HELPEDITEXITINSUPD DEL FWD PRINT EXHELP

Preserving the contents of transactions

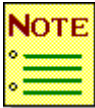
AD/Advantage allows you to access a transaction without losing the contents of or any unsaved changes to the transaction you were previously accessing. This is called an *external DO*. To preserve the contents of a transactions with an external DO, use this syntax:

.trans – id[.parm1.parm2.parm3]

The syntax for an external DO is similar to that for passing parameters, with an important difference: to preserve the contents of a transaction, you must type a delimiter *in front of* the transaction ID. (This “in front” delimiter is called the *external DO prefix*.) When you are ready to return to your original transaction (known as the *calling transaction*), press the Exit key to retrace your transaction path and return to the calling transaction with the content intact.



A period (.) is the default character for the external DO prefix; however, your system administrator may have changed this character.



In mainframe versions of MANTIS, you can use the external DO prefix once per calling transaction.

Example. Suppose you want to edit the menu definition for the Main Selection menu (#SYS). You have the menu definition for #SYS up on the screen, but you want to check the transaction definition of the #PRINT menu (#PRINT) before you proceed. You can use an external DO to access the #TRN transaction, and then return to #MENU with the contents of the #SYS record still intact. Here are the steps you would take:

- 1. Enter #MENU.#SYS at the command line to display the menu definition of #SYS (this could be from any AD/Advantage screen):

Main Selection (#SYS)

====> #MENU.#SYS

YYYY.MM.DD HH:MM PC-

#EDIT#LIST#UTILITY#GEN#OPTIONS#REPORTS

F1-----F3-----F7-----F8-----F10-----F12-----F17-----F18-----CANCEL-
HELPEXITBWDFWDEXHELPPROFILEPREVNEXTQUIT

The system displays the following menu definition for #SYS:

Edit Menu Definitions (#MENU)

====>

YYYY.MM.DD HH:MM PC-

Menu-ID... #SYS Main Selection ENU Subsystem ADV
Trans-ID... #EDIT Edit Functions
#LIST List Functions
#UTILITY Utilities
#GEN Generation Functions
#OPTIONS Options
#REPORTS Reports

F1-----F2-----F3-----F4-----F5-----F6-----F8-----F9-----F10-----
HELPEDITEXITINSUPDELFWDPRIEXHELP

2. Enter `.#TRN.#PRINT` at the command line, as shown in the following screen:

```

====> .#TRN.#PRINT                                     YYYY.MM.DD HH:MM PC-
-----
Menu-ID... #SYS_____ Main Selection_____ ENU Subsystem ADV
Trans-ID... #EDIT_____ Edit Functions
              #LIST_____ List Functions
              #UTILITY_____ Utilities
              #GEN_____ Generation Functions
              #OPTIONS_____ Options
              #REPORTS_____ Reports
              _____
              _____
              _____
              _____
              _____
              _____
              _____
              _____
              _____
F1-----F2-----F3-----F4-----F5-----F6-----F8-----F9-----F10-----
HELP      EDIT      EXIT      INS      UPD      DEL      FWD      PRINT      EXHELP

```

3. Press the Exit key to return to the `#MENU` screen. The `#SYS` menu definition you displayed earlier remains preserved.

Selecting transactions from a list

You can access a list of available transactions from the command line by pressing the Extended Help key.



The transactions displayed in the list are those authorized to your personal ID.

An example of the transactions list is shown in the following screen:

```

====>                                     YYYY.MM.DD HH:MM PC-
-----
#EDIT +-----+
|                                     |
| Transactions available to you      |
|-----|-----|
| - #ACCL1  Audit Trail Information |
| - #ACCL2  Most Used AD/A Transactions |
| - #ACCL3  AD/A Transactions daily base |
| - #AUTHL  List Transaction Authorizations |
| - #CINT   Case Integration |
| - #DATAL  List Data Views in the Scratchpad |
| S #DDEF   Edit Domain Definitions |
| - #DDEFL  List Domain Definitions |
| - #DEBUG  Debug Program Parameters |
|                                     |
| F3=EXIT F7=BWD F8=FWD |
|-----+-----|
F1-----F3-----F7-----F8-----F10-----F12-----F17-----F18-----CANCEL-
HELP      EXIT      BWD      FWD      EXHELP    PROFILE  PREV      NEXT      QUIT

```

To choose a transaction from the list, follow these steps:

1. Move to the transaction by any of the following methods:
 - ◆ To scroll through the list of transactions, use the Backward and Forward keys.
 - ◆ To list from a specific transaction ID forward, type the transaction ID (or its first few characters) in the first field and press the Forward key. AD/Advantage repositions the list from the new transaction ID forward.
 - ◆ To search for transactions for a particular subject, enter a subject in the first transaction description field and press the Forward key. For example, to list all transactions having to do with programs, enter "Program" in the description field and press the Forward Key.
2. Locate the transaction you want to access, type S in the Selection field (to the left of the transaction ID), and press ENTER.

Defining synonyms for transactions

A *synonym* is another name for a transaction, typically an abbreviation or a more meaningful name. You can assign transaction synonyms to any transaction for which you are authorized; however, these synonyms are applicable for your personal ID only, not for groups or for the entire system. You can also assign a parameter to a synonym. When you define a synonym for a transaction, you can access the transaction by typing either the transaction ID *or* the synonym at the command line. For information on how to define and edit synonyms, see "[Synonyms #SYNONYM](#)" on page 156.

Moving within transactions

There are several ways to navigate within transactions including pressing Tab between input fields, using the cursor to move to different areas of the screen to receive help, and using the function keys to move from one transaction record (or list of records) to the next.

Pressing tab to move between fields

When you first access a transaction, AD/Advantage places the cursor on the command line. To move from one field to the next, press TAB. The blinking cursor indicates the field in which you are located.

Positioning the cursor within a transaction

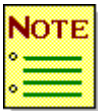
To access areas of a transaction that cannot be reached by pressing Tab, use the arrow keys to position the cursor. For example, you can move the cursor to points within the Header, Data Portion, or Trailer areas of a transaction to access online help information. For more information about getting help in AD/Advantage, see “[Getting help](#)” on page 57.

Using the keys and commands within a transaction

The keys within a transaction enable you to navigate between records and lists of records (Forward and Backward), access pop-up menus (Edit), move to the first and last record in a list (First and Last), scroll right and left (Right and Left), and move between next and previous records in a file (Next and Previous).

Using your transaction path

As you navigate through AD/Advantage, the system tracks which transactions you have accessed and the order in which you have accessed them. We call this record your *transaction path*. By pressing the Exit key, you can retrace your transaction path and back up through the transactions you previously accessed.



When you define a transaction, you can disable transaction pathing for that transaction.

Accessing your start transaction #HOME

When the system administrator sets up your personal ID, he or she assigns it a *start transaction ID*. Your start transaction defines which transaction the system displays immediately after sign on. You can access your start transaction from any AD/Advantage screen by entering #HOME at the command line. Pressing the QUIT key also produces the same result.

Creating a personal user menu #UMENU

Your system administrator can configure AD/Advantage to keep a record of the transactions you most recently accessed. If this function is enabled, the system maintains a running list of these transactions and displays it as a customized *personal user menu*. The last transaction you accessed displays at the top of the menu listing.

How your personal user menu looks and where you can view it on the system depends on whether your system administrator has configured AD/Advantage with pull-down or list menus.

If your system displays pull-down menus

You can view your personal user menu, showing the last 14 transactions you used, on any menu or by accessing the #UMENU transaction. The following screen shows an example of a personal user menu accessed by entering #UMENU at the command line:

```

====>                                User menu (#UMENU)                                YYYY.MM.DD HH:MM PC-
-----

-----
1  Sign On to AD/Advantage                (#SIGNON)
2  Edit System Parameters                 (#PARM)
3  List Domain Definitions                (#DDEFL)
4  Edit Transaction Authorizations        (#AUTH)
5  Call Users Start Transaction           (#HOME)
6  Edit Prototype Definitions             (#PTYPE)
7  Edit Domain Help Information           (#DHLP)
8  Edit Programs                         (#PRG)
9  List Transaction Authorizations        (#AUTHL)
10 Edit Screens                          (#SCR)
11 Edit Domain Definitions                (#DDEF)
12 Edit Transaction Definitions           (#TRN)
13 Edit Menu Definitions                  (#MENU)
14 List Screens                          (#SCRL)
F1-----F3-----F10-----F12-----CANCEL-----
HELP      EXIT      EXHELP    PROFILE  QUIT

```

The following screen shows an example of a personal user menu displayed on the Main Selection menu (remember that your personal user menu displays on every AD/Advantage menu):

```

Main Selection (#SYS)
====>                                YYYY.MM.DD HH:MM PC-
-----
#EDIT  #UTILITY  #GEN  #OPTIONS  #REPORTS
-----
1  Sign On to AD/Advantage              (#SIGNON)
2  Edit System Parameters                (#PARM)
3  List Domain Definitions               (#DDEFL)
4  Edit Transaction Authorizations       (#AUTH)
5  Call Users Start Transaction          (#HOME)
6  Edit Prototype Definitions            (#PTYPE)
7  Edit Domain Help Information          (#DHLP)
8  Edit Programs                        (#PRG)
9  List Transaction Authorizations       (#AUTHL)
10 Edit Screens                         (#SCR)
11 Edit Domain Definitions               (#DDEF)
12 Edit Transaction Definitions          (#TRN)
13 Edit Menu Definitions                 (#MENU)
14 List Screens                         (#SCRL)
F1-----F3-----F7-----F8-----F10-----F12-----F17-----F18-----CANCEL-
HELP      EXIT      BWD      FWD      EXHELP    PROFILE  PREV      NEXT      QUIT
  
```

If your system displays list menus

You can view your personal user menu, showing the last 16 transactions you used, by accessing the #UMENU transaction as the following screen shows:

```

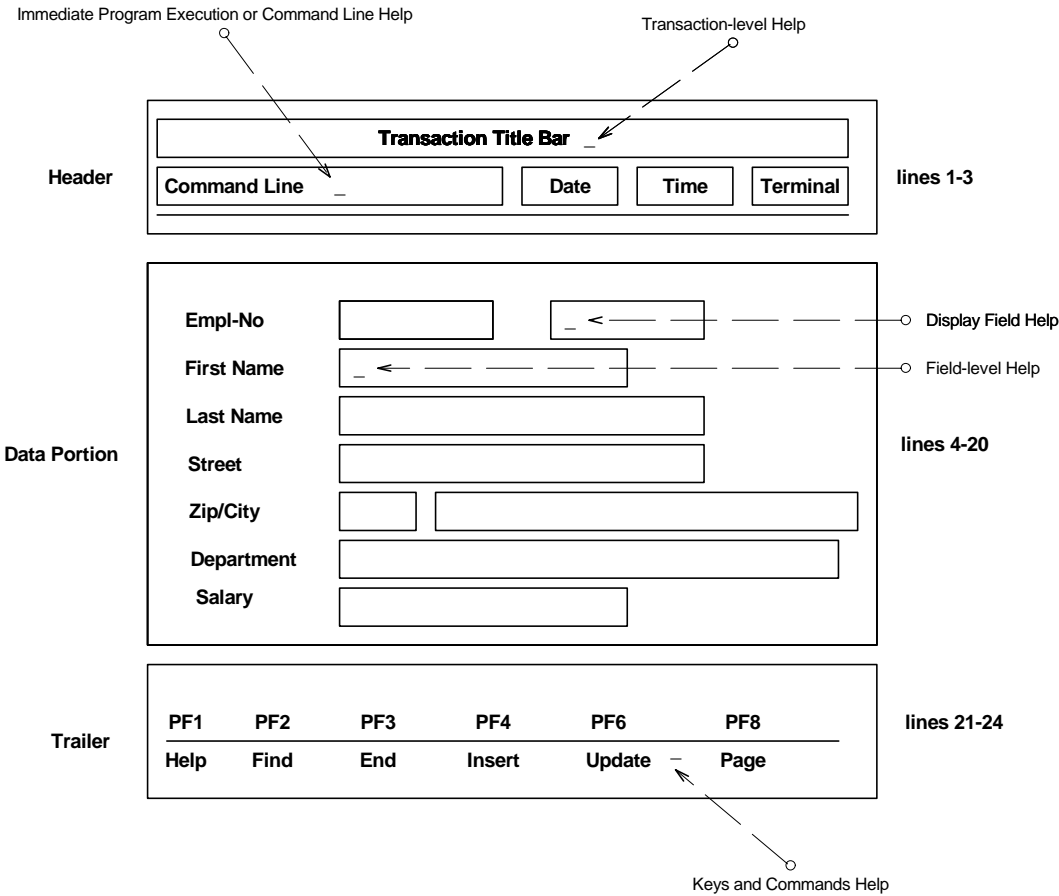
====>                                User menu (#UMENU)                                YYYY.MM.DD HH:MM PC-
-----
  1 List Domain Definitions              (#DDEFL)
  2 Edit Transaction Authorizations      (#AUTH)
  3 Sign On to AD/Advantage              (#SIGNON)
  4 Edit System Parameters               (#PARM)
  5 Call Users Start Transaction         (#HOME)
  6 Edit Prototype Definitions           (#PTYPE)
  7 Edit Domain Help Information         (#DHLP)
  8 Edit Programs                       (#PRG)
  9 List Transaction Authorizations      (#AUTHL)
 10 Edit Screens                        (#SCR)
 11 Edit Domain Definitions              (#DDEF)
 12 Edit Transaction Definitions         (#TRN)
 13 Edit Menu Definitions                (#MENU)
 14 List Screens                        (#SCRL)
 15 Edit Personal IDs                   (#ID)
 16 Edit Synonyms                       (#SYNONYM)

F1-----F3-----F12-----CANCEL-----
HELP      EXIT      PROFILE  QUIT

```


Getting help

AD/Advantage's *dynamic help subsystem* allows easy access to online help information for transactions. It provides transaction-level, field-level, and extended field-level help, as well as help information about the command line and available commands and keys. The following figure shows where to put the cursor to access help in any AD/Advantage transaction:



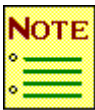
Transaction-level help

Transaction-level help summarizes how and when to use the transaction, along with general considerations about the transaction. To access transaction-level help, move the cursor to the transaction title bar and press the Help key.

Example. The transaction-level help for the #SYNONYM transaction is shown in the following screen:

```
====>                               Edit Synonyms (#SYNONYM)          YYYY.MM.DD HH:MM  PC-
-----
Personal-ID. | Edit Synonyms (#SYNONYM)
Synonym.....| Defines synonyms for AD/Advantage transactions
Trans-ID.....| A common use is to abbreviate or give a transaction
Parameter....| a more meaningful name. Synonyms are NOT system
               | wide but are for individual personal IDs.
               | Therefore different users can refer to the same
               | transaction by different names.
               |
               | F3=EXIT F7=BWD F8=FWD
               |
F1-----F3-----F4-----F6-----F8-----F10-----F11-----F12-----F14-----
HELP     EXIT     INS     DEL     FWD     EXHELP    CLEAR    PROFILE  FIRST
```

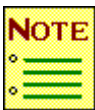
To define transaction-level help for the applications you develop, use the #HLP transaction. For more information, see “[Transaction-level help #HLP](#)” on page 177.



If Modify Help Information in the Personal ID Profile is set to Y, users can edit help information directly in the application without accessing #HLP.

Field-level help

Field-level help provides a definition of and important information about the fields on AD/Advantage screens. Field-level help also often includes the format for a field. To access field-level help, move the cursor to the field for which you need help, and press the Help key.



Although you cannot press TAB to move to a display field, display fields do include field-level help. To access field-level help for a display field, use arrow keys to move the cursor to the field and then press the Help key.

Example. Field-level help for the Domain field (in the #DDEF transaction) is shown in the following screen:

====> Edit Domain Definitions (#DDEF) YYYY.MM.DD HH:MM PC-

Domain.....

Field Type....

Low-Range....

Case Sensitive (Y/N)

Date.....

Operators:

/ = Not

= = Equal To

? = Starts

* = Contains

Component..

Program...

View Type..

View Name..

Key Name...

F1-----F3-----F4-----F5-----F6-----F8-----F10-----F11-----F12-----

HELPEXITINSUPDDELFWDEXHELPCLEARPROFILE

Values

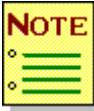
Key Type.

Ref Name.

Domain

Name of the Domain. Domains are defined globally by name in AD/Advantage. Usually they are fields for which validation checks are required. The domain should match the field name in the AD/Advantage application. The Domain name can be up to 30 characters.

To define field-level help for the applications you develop, use the #DHLP transaction. For more information, see [“Domain help information #DHLP”](#) on page 136.



If Modify Help Information in the Personal ID Profile is set to Y, users can edit help information directly in the application without accessing #DHLP.

Extended field-level help

Extended field-level help displays all valid options you can enter in a particular field. To access extended field-level help, press TAB to move to the field for which you need help, and press the Extended Help key.

AD/Advantage retrieves extended help information from domain values defined in the #DDEF transaction; therefore, Extended field-level help is not available for fields that do not have domains defined in the system. For more information about domains and #DDEF, see [“Domain Definitions Screen #DDEF”](#) on page 125.

Example. Extended field-level help for the Subsystem field (in the #MENU transaction) is shown in the following screen:

====> Edit Menu Definitions (#MENU) YYYY.MM.DD HH:MM PC-

Menu-ID. .+-----+system
Trans-ID. | Subsystem

- = ADV AD/Advantage System Functions
- = DEV Developer Subsystem

F3=EXIT F7=BWD F8=FWD

F1-----F2-----F3-----F4-----F5-----F6-----F8-----F9-----F10-----
HELP EDIT EXIT INS UPD DEL FWD PRINT EXHELP

Some extended field-level help (such as in the previous example) allows you to enter a value in the field directly from the extended help window. To do this, type S (for select) in front of the option you want and press ENTER. The system places the option you selected in the appropriate field.

Command line help

You can access help information about the command line from every AD/Advantage screen. To access command line help, move your cursor to the command line and press the Help key.

Example. AD/Advantage's command line help is shown below:

+-----+
| Command Line |
+-----+
| In the Command Line you can |
| 1. Enter Commands directly instead of |
| pressing function keys. |
| FOR EXAMPLE: Enter HELP instead of |
| pressing function key 1. |
| 2. Enter Transactions directly instead |
| of going through the menus. |
| FOR EXAMPLE: Enter CUSTM to go to the |
| Customer Maintenance transaction. |
| 3. Enter Menu Options when using Menus. |
+-----+

Command and key help

To display a list of valid commands and keys for the current transaction, move the cursor to the key list at the bottom of the screen and press the Extended Help key.



Throughout this guide, we refer to *keys* rather than *function keys*.

Example. Command and key help for the #PTYPE transaction is shown in the following screen:

```
====>                                Edit Prototype Definitions (#PTYPE)                                YYYY.MM.DD HH:MM PC-
-----
Trans-ID.+-----+
Subsystem|      Function Keys for Current Transaction      |
Descripti+-----+
Screen...| Command  Key      | Command  Key      |
File Type| EXIT    F3      | INS      F4      |
Primary F| UPD     F5      | DEL      F6      |
Records/S| FWD     F8      | EXHELP   F10     |
Commands| CLEAR   F11     | PROFILE  F12     |
Insert...| FIRST   F14     | QUIT     CANCEL   |
Update...|
Delete...|
Get-Back.|
Get-Forwa|
First....|
Last.....|
Clear Scr+-----+
F1-----F2-----F3-----F4-----F5-----F6-----F8-----F10-----F11-----
HELP      EDIT      EXIT      INS      UPD      DEL      FWD      EXHELP    CLEAR
```

Exiting AD/Advantage

When you are ready to exit AD/Advantage, enter QUIT at the command line of the current transaction or press the CANCEL key. The system returns to your start transaction. To terminate the session, enter QUIT at the command line of the start transaction or press the CANCEL key.

How the system responds depends on how the system administrator has configured AD/Advantage:

- ◆ If AD/Advantage is not set to confirm termination (set in #PARM), the system immediately terminates.
- ◆ If AD/Advantage is set to confirm termination, the system prompts you, “Do You really want to quit?” To cancel the termination, press ENTER. To exit, press TAB to position the cursor on Yes and press ENTER.

====>

Main Selection (#SYS)

YYYY.MM.DD HH:MM PC-

#EDIT

#LIST

#UTILITY

#GEN

#OPTIONS

#REPORTS

Do You really want to quit?

NOYES

F1-----F3-----F7-----F8-----F10-----F12-----F17-----F18-----CANCEL-

HELPEXITBWD FWD EXHELP PROFILE PREV NEXT QUIT

3

Designing applications: a step-by-step guide

AD/Advantage makes designing programs easy by using a standard tool called a *transaction*. You define a transaction for each AD/Advantage, MANTIS, and 3GL program that you write. In defining a transaction for each of your programs, you specify all program parameters, including generation defaults, in one place.

This chapter takes you through the generation process step by step:

Step	See
Ensure a subsystem is defined	"Step 1: Define a subsystem #SUB" on page 69.
Define the transaction	"Step 2: Define the transaction #TRN" on page 70.
Generate the program	"Step 3: Generate the program" on page 89.
Execute the program	"Step 4: Execute the program" on page 96.
Add help	"Step 5: Add help #HLP and #DHLP" on page 98.
Add field validation	"Step 6: Add field validation #DDEF" on page 105.
Add the transaction to menus	"Step 7: Add the transaction to a menu #MENU" on page 116.
Test the program	"Step 8: Test the program" on page 121.

Types of transactions

Before defining your transaction, you should understand the different types of transactions that AD/Advantage offers.

AD/Advantage supports three different types of transactions:

- ◆ Single (Edit)
- ◆ List
- ◆ Mixed

Single transactions

A Single transaction is one that displays a single record at a time. Using a single transaction, you allow the user to edit information in individual records. For example, if you defined a single transaction for employee records, the transaction would show a single employee record:

Employee Record	
Name:	<u>Jane Doe</u>
Title:	<u>Executive Director</u>
Emp-No:	<u>555-55-5555</u>
Dept:	<u>HMR</u>
Phone:	<u>x-4152</u>

List transactions

A List transaction is one that displays a list of records, one of which the user can select. For example, you might create a list of employees, as shown in the figure below. Using a list transaction, you allow the user to do the following:

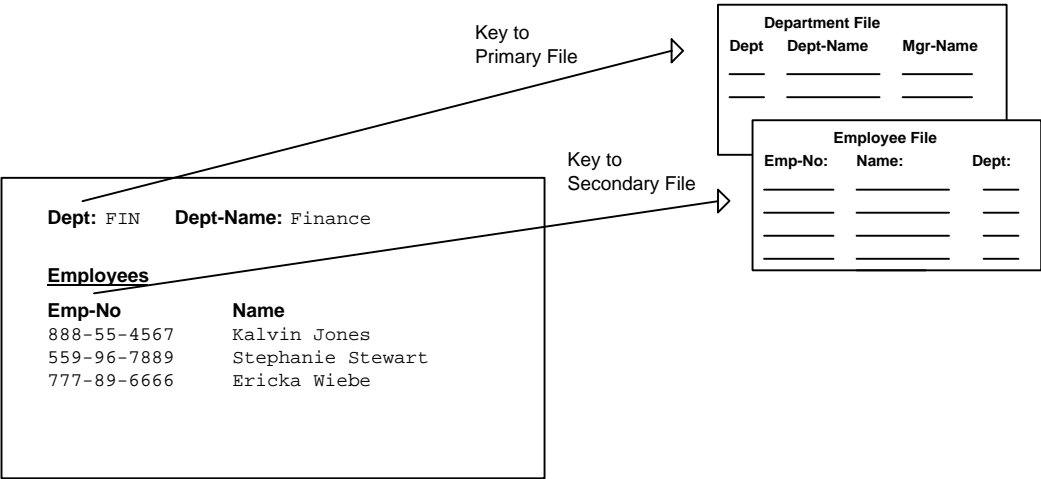
- ◆ Select a record, in which case the system displays the individual record and its contents.
- ◆ Update the record.
- ◆ Insert a new record.
- ◆ Delete an existing record.

The user can perform these commands by entering the appropriate command code in the Selection field (represented by the S below):

Employee List			
S	Emp-No	Dept	Name
—	223-40-4444	HMR	John Adams
—	666-00-0000	ACC	Matt Brown
—	555-55-5555	HMR	Jane Doe
—	888-55-4567	FIN	Kalvin Jones
—	123-45-6789	ACC	Becky Lloyd
—	559-96-7889	FIN	Stephanie Stewart
—	283-67-9999	CLA	Stacy Tupps
—	777-89-6666	FIN	Ericka Wiebe

Mixed transactions

A Mixed transaction is one that combines records from more than one file: a primary and a secondary file. For example, you might create a transaction that shows all employees in a certain department. In that case, Department is the primary file, and Employee is the secondary file:



Step 1: Define a subsystem #SUB

Before you design any transactions, help, or domains for an application, the system administrator should define a subsystem identifier for the application. This enables all the AD/Advantage entities that belong to a particular application to be grouped together to more easily migrate AD/Advantage entities between systems.

An example of a subsystem could be the finance application.

If you wanted to migrate all entities associated with this application from one system to another, you would first use the #SUB transaction to create a finance subsystem. This enables you to track which AD/Advantage entities belong to an subsystem to ease maintenance and migration of your applications from test to production.

The #SUB transaction is restricted to system administration use only. To create a subsystem, request that your system administrator add one for you.

Step 2: Define the transaction #TRN

You can define transactions for the following:

- ◆ AD/Advantage programs (programs generated or written to conform to AD/Advantage guidelines).
- ◆ An existing MANTIS program.
- ◆ A 3GL program (COBOL, C, Assembler, etc.).
- ◆ Operating system and environmental commands (MS-DOS and OS/2).

To define the transaction, use the #TRN transaction shown in the following screen:

```

====>                               Edit Transaction Definitions (#TRN)
                                     YYYY.MM.DD HH:MM PC-
-----
Trans-ID..... Desc _____ ENU
Subsystem..... Program _____ Type... _
User Data..... _____
SQL-Options..... _
Trans Journal... _ System-Language.. _ Disabled.. _ Disable Tran-Path.. _
-----
                          Commands
-----
General Get-Back.. _ Get-Forw.. _ Confirm... _ Print..... _ Search... _
      First..... _ Last..... _ Left..... _ Right..... _ Clear Scr _
Single Insert.... _ Update.... _ Delete.... _ Generate.. _ Execute.. _
List Insert.... _ Update.... _ Delete.... _ Select.... _ -> _____
Mixed Previous.. _ Next..... _ Top..... _ Bottom.... _
User Cmd1..... _ Cmd2..... _ Cmd3..... _ Cmd4..... _ Cmd5..... _
-----
                          Generation-Options
-----
Screen..... _____
File Type..... _____
Primary File.... _____ Records on Screen.. 0
Secondary File.. _____ Records on Screen.. 0
F1-----F3-----F8-----F10-----F14-----CANCEL-----
HELP      EXIT      FORWARD EXHLP      FIRST      CANCEL

```

Enter data in the appropriate fields:

Trans-ID

- Description** *Required.* Specifies the ID code of the transaction.
- Format** 1–8 alphanumeric characters. The first character must not begin with the hash sign (#) because AD/Advantage system transactions begin with a hash sign (#).

Desc

- Description** *Optional.* Specifies the transaction description that displays centered on the top line of the transaction.
- Format** 1–40 alphanumeric characters
- Consideration** You can use the Edit key to display a pop-up window that looks like the following:

Description	Language
	ENU

You can define the transaction description for up to five languages.



The default system language is U.S. English (ENU). Contact your local Cincom representative for other languages supported by AD/Advantage.

Language (field untitled on screen)

Description *Optional.* Specifies the language of the transaction description.

Default ENU (U.S. English)



The default system language is U.S. English (ENU). Contact your local Cincom representative for other languages supported by AD/Advantage.

Format 3 alphanumeric characters

Subsystem

Description *Required.* Specifies the subsystem to which this transactions belongs.

Format 3 alphanumeric characters

Program

Description *Required.* Specifies the name of the program to be executed.

Format *MANTIS-user-name;program-name*

Considerations

- ◆ If you do not specify a MANTIS user name, AD/Advantage inserts the current MANTIS user name when you insert or update the record.
- ◆ Press the Edit key while on this field to invoke the MANTIS Program Design Facility.

Type

Description	<i>Required.</i> Specifies the transaction type code.
Default	(blank)
Options	A AD/Advantage User Application. 4 MANTIS Application. 3 3GL Program.
Consideration	The AD/Advantage driver uses this code to determine how to process the transaction.

User Data

Description	<i>Optional.</i> Specifies one of the following: <ul style="list-style-type: none"> ◆ If you are developing a MANTIS transaction: Specifies the number of parameters the MANTIS program is expecting. ◆ If you want to use a user-developed template instead of the default determined by #GENIND or #GENSQL: Specifies the name of the user-developed template. ◆ If you are developing an end-user application: Specifies special processing information which SYST can access.
--------------------	---

Example The system transaction #SCR calls the MANTIS Screen Design facility. In the transaction definition of #SCR, the User Data field contains the following:

```
/MANTIS/1
```

AD/Advantage's External Program Handler reads contents of the User Data field and knows that #SCR maps to a MANTIS facility (/MANTIS) and that when you use #SCR you can pass one parameter to it (/1).

Similarly, you can define your existing MANTIS programs in AD/Advantage by entering specifications in the User Data field.

SQL Options

Description *Optional.* Specifies the SQL password, personal ID, and database name. Press the Edit key to display a pop-up window to enter these values:

SQL Options

User-ID.. _____

Password. _____

Database. _____

User-ID

Description *Optional.* Specifies the SQL user ID.

Password

Description *Optional.* Specifies the SQL user password.

Database

Description *Optional.* Specifies the SQL database name.

Consideration Typically, your system administrator globally, or by individual personal ID, sets an SQL user ID, password, and database name. However, if you need different sign-on parameters or a different database for this transaction, specify them here. The options you define here override the global options your system administrator specified.

Trans Journal

Description *Optional.* Specifies whether you want AD/Advantage to journal this transaction to the audit trail.

Default (blank)

Options (blank) Does not journal this transaction to the audit trail.

Y Journals this transaction to the audit trail.

Considerations

- ◆ Your system administrator can set up your system so that every transaction is journalled. If this is the case, your transaction will be journalled even if you specify blank for this field.
- ◆ To display reports such as the audit trail list (#ACCL1), most used AD/Advantage transactions (#ACCL2), and daily transactions by hour (#ACCL3), the transaction must be journalled (set to Y).

System-Language

Description *Optional.* Specifies whether the transaction should use the system language or the language defined in the user's personal ID. (Your system administrator defines the system language in the Edit System Parameters transaction (#PARM)).

Default (blank)

Options (blank) The transaction uses the language defined in the user's personal ID. Note that you must define the screen in this language as well.

Y The transaction uses the system language.

Disabled

Description	<i>Optional</i> Specifies whether to disable the transaction.
Default	(blank)
Options	(blank) Enables the transaction. Y Disables the transaction. A user will not be able to run the transaction if you specify Y. To enable the transaction again, set this field to blank.
Example	You might disable a transaction if it must be changed and you do not want anyone using it until you make the changes.

Disable Trans Path

Description	<i>Optional.</i> Specifies whether AD/Advantage should add this transaction to the user's transaction path.
Default	(blank)
Options	(blank) The system places this transaction in the user's transaction path. Y The system does not place this transaction in the user's transaction path. Therefore, when the user presses the Exit key in a subsequent transaction, he/she will not return to this transaction.
Consideration	For complete details on transaction pathing, see " Using your transaction path " on page 52.

General commands

These are commands you can specify regardless of whether you are creating a single, list, or mixed program.

Get-Back

Description	<i>Optional.</i> Specifies whether you can read previous records in the primary file when using this transaction.
Default	(blank)
Options	(blank) Cannot read previous records in the primary file. Y Can read previous records in the primary file.

Get-Forw

Description	<i>Optional.</i> Specifies whether you can read next records in the primary file when using this transaction.
Default	(blank)
Options	(blank) Cannot read next records in the primary file. Y Can read next records in the primary file.

Confirm

Description	<i>Optional.</i> Specifies whether the transaction will prompt you to confirm a deletion.
Default	(blank)
Options	(blank) The transaction does not prompt you to confirm a deletion. Y The transaction does prompt you to confirm a deletion.
Consideration	If set to Y, a window displays which prompts you to position the cursor to 'YES' to perform the deletion.

Print

- Description** *Optional.* Specifies whether you can use the print command when using this transaction.
- Default** (blank)
- Options** (blank) Cannot use the print command when using this transaction.
Y Can use the print command when using this transaction.
- Consideration** If you allow printing from this transaction, the contents of the screen automatically print to the printer or file defined in your personal ID. You can change your printer ID by pressing the Profile key.

Search

- Description** *Optional.* Specifies whether you can search for records in the primary file when using this transaction.
- Default** (blank)
- Options** (blank) Cannot search for records in the primary file.
Y Can search for records in the primary file.

First

- Description** *Optional.* Specifies whether you can read the first record in the primary file when using this transaction.
- Default** (blank)
- Options** (blank) Cannot read the first record in the primary file.
Y Can read the first record in the primary file.

Last

Description	<i>Optional.</i> Specifies whether you can read the last record in the primary file when using this transaction.
Default	(blank)
Options	(blank) Cannot read the last record in the primary file. Y Can read the last record in the primary file.

Left

Description	<i>Optional.</i> Specifies whether you can scroll the transaction screen to the left.
Default	(blank)
Options	(blank) Cannot scroll the transaction screen to the left. Y Can scroll the transaction screen to the left.

Right

Description	<i>Optional.</i> Specifies whether you can scroll the transaction screen to the right.
Default	(blank)
Options	(blank) Cannot scroll the transaction screen to the right. Y Can scroll the transaction screen to the right.

Clear Scr

Description	<i>Optional.</i> Specifies whether you can clear the screen when using this transaction.
Default	(blank)
Options	(blank) Does not clear the screen. Y Clears the screen.

Single commands

These are commands you specify when defining a transaction for a single or mixed processing transactions.

Insert

Description	<i>Optional.</i> Specifies whether you can insert records when using this transaction.
Default	(blank)
Options	(blank) Cannot insert records when using this transaction. Y Can insert records when using this transaction.

Update

Description	<i>Optional.</i> Specifies whether you can update records when using this transaction.
Default	(blank)
Options	(blank) Cannot update records when using this transaction. Y Can update records when using this transaction.

Delete

Description	<i>Optional.</i> Specifies whether you can delete records when using this transaction.
Default	(blank)
Options	(blank) Cannot delete records when using this transaction. Y Can delete records when using this transaction.

Generate

Description *Optional.* Specifies whether you can generate a screen, program, or other entity when using this transaction.

Default (blank)

Options (blank) Cannot generate a screen, program, or other entity.

Y Can generate a screen, program, or other entity.

Consideration The Generate command is used by the generators in AD/A II to generate entities. You can use this command as well in your application. You must code the logic for this command into your program manually.

Execute

Description *Optional.* Specifies whether you can display a pop-up window to enter more information than can fit on a screen.

Default (blank)

Options (blank) Cannot display a pop-up window to enter additional information than can fit on a screen.

Y Can display a pop-up window to enter additional information than can fit on a screen.

List commands

These are commands you specify when defining a transaction for list or mixed processing transactions.

Insert

Description	<i>Optional.</i> Specifies whether you can insert records when using this transaction.
Default	(blank)
Options	(blank) Cannot insert records when using this transaction. Y Can insert records when using this transaction.

Update

Description	<i>Optional.</i> Specifies whether you can update records when using this transaction.
Default	(blank)
Options	(blank) Cannot update records when using this transaction. Y Can update records when using this transaction.

Delete

Description	<i>Optional.</i> Specifies whether you can delete records when using this transaction.
Default	(blank)
Options	(blank) Cannot delete records when using this transaction. Y Can delete records when using this transaction.

Select

Description	<i>Optional.</i> Specifies whether you can select a record in a list transaction.
Default	(blank)
Options	(blank) Cannot select a record. Y Can select a record.

Select Trans-ID (field untitled on screen, prefixed with ->)

Description	<i>Required</i> if you set the Select field to Y. In a list transaction, specifies which transaction runs when the user enters the Select command in the Selection field.
Format	1–8 alphanumeric characters
Example	You define a transaction called CUSTL that lists all your customer records, any of which the user can select to make updates. In the transaction definition of CUSTL, enter Y in the Select field and CUST in the Select Trans-ID field. Using these entries, AD/Advantage knows to run the CUST transaction (with the name of the customer, shown next to the Selection field in CUSTL, being passed as the parameter to CUST).

Mixed commands

These are commands you specify when defining a transaction for a mixed processing program.

Previous

- Description** *Optional.* Specifies whether you can read the previous record in the secondary file when using this transaction.
- Default** (blank)
- Options** (blank) Cannot read the previous record in the secondary file.
- Y Can read the previous record in the secondary file.
- Consideration** This command supports only mainframe users with SUPRA PDM and Index files at this time.

Next

- Description** *Optional.* Specifies whether you can read the next record in the secondary file when using this transaction.
- Default** (blank)
- Options** (blank) Cannot read the next record in the secondary file.
- Y Can read the next record in the secondary file.

Top

- Description** *Optional.* Specifies whether you can read the first record in the secondary file when using this transaction.
- Default** (blank)
- Options** (blank) Cannot read the first record in the secondary file.
- Y Can read the first record in the secondary file.

Bottom

Description	<i>Optional.</i> Specifies whether you can read the last record in the secondary file when using this transaction.
Default	(blank)
Options	(blank) Cannot read the last record in the secondary file. Y Can read the last record in the secondary file.

User commands

These are customized-commands, or those you can define that are additional to those offered by AD/Advantage.

User Cmd 1-5

Description	<i>Optional.</i> Specifies additional commands to those supported by the AD/Advantage generator. To implement these commands, you must do the following: <ol style="list-style-type: none">1. Use the #PFK transaction to define a key for one or more user commands (UCMD1–UCMD5).2. Enter Y in the User Command fields listed on this screen (Cmd1–Cmd5) for those commands that you want to activate.3. Access your generated or manually coded program and specify what to do when the user issues one of the user commands.
--------------------	---

Generation-Options

Screen

- Description** *Required* if you are defining a transaction that generates a screen. Specifies the name of the screen generated by this transaction
- Format** *user-name:screen-name*
- Example** EXAMPLES:ABC is screen ABC in user Examples.
- Consideration** If you do not specify a MANTIS user name, AD/Advantage inserts the current MANTIS user name when you insert or update the record.
-

File Type

- Description** *Required* if you are defining a transaction that uses a file. Specifies the type of file defined for the transaction.
- Options** INT Internal file
- EXT External file view
- PDM SUPRA PDM file view
- DLI DL/I View
- RDM SUPRA RDM
- INF Interface View (for interfaces you write between MANTIS and your database)
- SQL SQL table or view

Primary File

Description *Required* if you want to generate a Single, List, or Mixed transaction. Specifies the primary file used by this transaction.

Records on Screen (for the Primary file)

Description *Required* if you completed the Primary File field. Specifies the number of records to be displayed on the screen for the primary file.

Default 0

Secondary File

Description *Required* if you want to generate a Mixed transaction. Specifies the secondary file used by this transaction.

Records on Screen (for the Secondary file)

Description *Required* if you completed the Secondary file field. Specifies the number of records that should display on the screen for the secondary file.

Default 0

Example transaction definition

In the example below, you define a transaction called CUST, which you generate from the CUST internal file in the EXAMPLES MANTIS User.

It will be a single record transaction for maintenance purposes, so you specify Y for the Insert, Update, and Delete commands.



You did not define List or Mixed commands, because list commands are only for transactions with more than one record on the screen, and mixed commands are only used when a secondary file is specified.

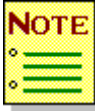
The generated program is called CUST. It resides in the current MANTIS User, EXAMPLES. The screen is also called CUST, and it also resides in the EXAMPLES MANTIS User.

```

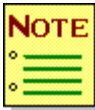
                                Edit Transaction Definitions (#TRN)
====>                                YYYY.MM.DD HH:MM  PC-00
-----
Trans-ID..... CUST      Desc Customer Maintenance      ENU
Subsystem..... DEV      Program EXAMPLES:CUST          Type... A
User Data.....
SQL-Options.....
Trans Journal... _ System-Language.. _ Disabled.. _ Transaction-Path... _
-----
                                Commands
General Get-Back.. _ Get-Forw.. Y Confirm... Y Print..... _ Search... Y
      First..... Y Last..... _ Left..... _ Right..... _ Clear Scr _
Single Insert.... Y Update.... Y Delete.... Y Generate.. Y Execute.. _
List Insert..... _ Update.... _ Delete.... _ Select.... _ ->
Mixed Previous.. _ Next..... _ Top..... _ Bottom.... _
User Cmd1..... _ Cmd2..... _ Cmd3..... _ Cmd4..... _ Cmd5.....
-----
                                Generation-Options
Screen..... EXAMPLES:CUST
File Type..... INT
Primary File... EXAMPLES:CUST      Records on Screen.. 1
Secondary File..      Records on Screen..
F1-----F2-----F3-----F4-----F5-----F6-----F8-----F10-----F11-----
HELP      EDIT      EXIT      INS      UPD      DEL      FWD      EXHELP      CLEAR
```


Step 3: Generate the program

To generate the program from your transaction definition, follow the steps in “[Generating a non-SQL program](#)” starting on page 90 and “[Generating an SQL program](#)” starting on page 93.



Before generating the transaction, ensure that you insert or update your transaction definition.



Before you generate the program, you should determine the additional commands necessary for use by your program. The system administrator can add commands to the template, for example, to pad and unpad fields on your screen accordingly. See your system administrator to perform these changes to the templates.

Generating a non-SQL program

Take the following steps to generate your non-SQL program:

Step 1. Enter the command GEN at the command line of the #TRN transaction

The #GENIND transaction displays:

Generate a Program for Indexfiles (#GENIND)

====> GENYYYY.MM.DD HH:MM PC-00

Trans-ID to be generated.. _____

Generate a Screen?..... _

Use all View Fields?..... _

Overwrite if exist?..... _

Generated Program.....

Screen.....

Primary File.....

Secondary File.....

F1-----F3-----F10-----F13-----CANCEL-----

HELPEXITEXHELPGENQUIT

AD/Advantage automatically fills in the fields below the middle line based on your #TRN definition.

Step 2. Use the field descriptions that follow to complete the #GENIND transaction

Trans-ID to be generated

Description	<i>Required.</i> Specifies the transaction identifier of the program to be generated.
Format	1–8 alphanumeric characters

Generate a Screen?

Description	<i>Optional.</i> Specifies whether you want a screen generated from your program.
Default	(blank)
Options	(blank) Does not generate a screen. Y Generates a screen.

Consideration If you specify Y, the generator creates a screen according to the fields in the file you specified in #TRN. Also, the #GENDEF transaction will automatically generate default definitions for your screen.

Use all View Fields?

Description	<i>Optional.</i> Specifies whether you want to 1) use all fields from the view you specified in #TRN, or 2) select from a list of fields in the view.
Default	(blank)
Options	(blank) Displays a pop-up window listing the fields in the view (during generation, AD/Advantage). AD/Advantage automatically selects the key fields for you, and you select the fields that you want to include. Y Use all fields in the view.

Overwrite if exist?

Description	<i>Optional.</i> Specifies whether to overwrite existing programs and screens without a warning.
Default	(blank)
Options	(blank) A warning must display before existing programs and screens are overwritten. Y Existing programs and screens are to be overwritten without a warning.

Generated Program

Description	<i>Display.</i> Specifies the name of the MANTIS program to be generated, including the user qualifier. For example, EXAMPLES:CUST. This is a program called CUST in the user EXAMPLES.
--------------------	---

Screen

Description	<i>Display.</i> Specifies the screen name for the transaction, including the user qualifier. For example, EXAMPLES:ABC. This is a screen called ABC in user EXAMPLES.
--------------------	---

Primary File

Description	<i>Display.</i> Specifies the name of the primary file used by this transaction.
--------------------	--

Secondary File

Description	<i>Display.</i> Specifies the name of the secondary file used by this transaction.
Step 3. Enter the GEN command to start the generation process	
After the generation process is complete, you can run the application by entering the transaction at the command line.	

Generating an SQL program

Take the following steps to generate your SQL program.

Step 1. Enter the command GEN at the command line of the #TRN transaction

The #GENSQL transaction displays.

```

====>                                Generate a SQL Program (#GENSQL)          YYYY.MM.DD HH:MM PC-
-----
Trans-ID to be generated..  _____

Generate a Screen.....  _
Use all Table Fields?.....  _
Overwrite if exist?.....  _
-----
Generated Program.....
Screen.....
View-Name.....

F1-----F3-----F10-----F12-----F13-----CANCEL-----
HELP      EXIT      EXHELP    PROFILE  GEN      QUIT

```

AD/Advantage automatically fills in the fields below the middle line based on your #TRN definition.

Step 2. Use the field descriptions that follow to complete the #GENSQL transaction

Trans-ID to be generated

Description	<i>Required.</i> Specifies the transaction identifier of the program to be generated.
Format	1–8 alphanumeric characters

Generate a Screen?

Description	<i>Optional.</i> Specifies whether you want a screen generated from your program.
Default	(blank)
Options	(blank) Does not generate a screen. Y Generates a screen.

Consideration If you specify Y, the generator creates a screen according to the fields in the file you specified in #TRN. Also, the #GENDEF transaction will automatically generate default definitions for your screen.

Use All Table Fields?

Description	Specifies whether you want to: (1) use all fields from the view (table) you specified in #TRN, or (2) select from a list of fields in the table.
Default	(blank)
Options	(blank) Displays a pop-up window listing the fields in the view (during generation, AD/Advantage). AD/Advantage automatically selects the key fields for you, and you select the fields that you want to include. Y Use all fields in the table

Overwrite if exist?

Description	<i>Optional.</i> Specifies whether to overwrite existing programs and screens without a warning.
Default	(blank)
Options	(blank) A warning must display before existing programs and screens are overwritten. Y Existing programs and screens are to be overwritten without a warning.

Generated Program

Description	<i>Display.</i> Specifies the name of the MANTIS program to be generated, including the user qualifier. For example, EXAMPLES:CUST. This is a program called CUST in the user EXAMPLES.
--------------------	---

Screen

Description	<i>Display.</i> Specifies the screen name for the transaction, including the user qualifier. For example, EXAMPLES:ABC. This is a screen called ABC in user EXAMPLES.
--------------------	---

Primary File

Description	<i>Display.</i> Specifies the name of the primary file used by this transaction.
--------------------	--

Secondary File

Description	<i>Display.</i> Specifies the name of the secondary file used by this transaction.
--------------------	--

Step 3. Enter the GEN command to start the generation process

After the generation process is complete, you can run the application by entering the transaction at the command line.

Step 4: Execute the program

After you generate the program, execute it by typing the transaction ID at the command line and pressing ENTER.

In the following example, you have already defined a transaction for CUST and generated a program called CUST:

```

Generate a Program for Indexfiles (#GENIND)
==> CUST                                YYYY.MM.DD  HH:MM  PC-00
-----
Trans-ID to be generated..  CUST      Customer Maintenance

Generate a Screen?.....  Y
Use all View Fields?.....  _
Overwrite if exist?.....  Y
-----
Generated Program.....  EXAMPLES:CUST
Screen.....  EXAMPLES:CUST
Primary File.....  EXAMPLES:CUST
Secondary File.....

F1-----F3-----F10-----F13-----CANCEL-----
HELP      EXIT      EXHELP    GEN      QUIT
G10:The program has been generated

```


After you type CUST and press ENTER, the program executes using the standard header and trailer screens (**highlighted**) that are stored in the MANTIS MASTER user:

```
====> Customer Maintenance (CUST)          YYYY.MM.DD  HH:DD  PC-00
-----
CUST_NO.....
CUST_NAME.....
CUST_ADDR.....
PHONE_NO.....

F1-----F3-----F4-----F5-----F6-----F7-----F8-----F10-----F14-----
HELP      EXIT      INS      UPD      DEL      BWD      FWD      EXHELP    FIRST
```

Step 5: Add help #HLP and #DHLP

You can add the following kinds of help:

- ◆ **Transaction-level help.** Textual information you define for your transaction; it describes the transaction. You access transaction-level help by placing your cursor in the transaction title bar (the line on which the transaction name displays) and pressing the Help key.
- ◆ **Field-level help.** Textual information you define for each field in your transaction; it describes the field. You access field-level help by placing your cursor on a field and pressing the Help key.

Add transaction-level help #HLP

To define and edit transaction-level help, use the #HLP transaction shown below. (Use #DHLP to define and edit field-level help.)

Transaction help displays when you move the cursor to the top line of the screen (the line on which the title displays) and press the Help key.



If modify help information in your user profile is set to Y, you do not need to use #HLP; instead you can directly add help information in a transaction.

```

Edit Transaction Help (#HLP)          YYYY.MM.DD HH:MM PC-
====>-----
Trans-ID...   _____ Language.... ____ Subsystem...  ____
                Help Text                                     Row
    :                                                :
    :                                                :
    :                                                :
    :                                                :
    :                                                :
    :                                                :
    :                                                :
    :                                                :
    :                                                :
    :                                                :
    :                                                :
F1-----F3-----F4-----F5-----F6-----F8-----F10-----F11-----F12-----
HELP      EXIT     INS      UPD      DEL      FWD       EXHELP    CLEAR     PROFILE
```

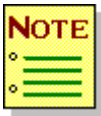
Enter data in the appropriate fields:

Trans-ID

Description	<i>Required.</i> Specifies the ID of the transaction for which you are defining help.
Format	1–8 alphanumeric characters

Language

Description	<i>Required.</i> Specifies the language of the transaction description.
--------------------	---



The default system language is U.S. English (ENU). Contact your local Cincom representative for other languages supported by AD/Advantage.

Default	The language specified in the user's personal ID. If the user does not have a language specified in his/her personal ID, the system defaults to the language set by the system administrator.
----------------	---

Format	3 alphanumeric characters
---------------	---------------------------

Subsystem

Description	<i>Required.</i> Specifies the subsystem to which the transaction belongs.
--------------------	--

Format	3 alphanumeric characters
---------------	---------------------------

Help Text

Description	<i>Required.</i> Specifies the text that displays in the user's pop-up window when he/she presses the Help key while the cursor is on the transaction title bar.
--------------------	--

Format	1–50 alphanumeric characters on each line, up to 50 lines total
---------------	---

Row

Description	<i>Display.</i> Shows the row number or line number of the help text.
--------------------	---

Example of transaction-level help

If you have a customer maintenance transaction, you might define the following transaction-level help:

```
====>                                Edit Transaction Help (#HLP)                                YYYY.MM.DD HH:MM  PC-00
-----
Trans-ID...  CUST____ Language....  ENU Subsystem...  DEV
              Help Text
              :   The Customer Maintenance transaction is used to : 1
              : maintain customers. All customers should be added : 2
              : using this transaction before other functions are : 3
              : attempted.                                         : 4
              :                                                    : 5
              :                                                    : 6
              :                                                    : 7
              :                                                    : 8
              :                                                    : 9
              :                                                    : 10
              :                                                    : 11
              :                                                    : 12
              :                                                    : 13
              :                                                    : 14
F1-----F3-----F4-----F5-----F6-----F8-----F10-----F11-----F14-----
HELP      EXIT      INS      UPD      DEL      FWD      EXHELP    CLEAR      FIRST
```

Add field-level help #DHLP

To define and edit field-level help, use the #DHLP transaction shown below.

You can enter 10 lines with a maximum of 40 characters on each line for each domain. The user displays this information by positioning the cursor on the field and pressing the Help key.



AD/Advantage system field (domain) help is prefixed with a special character—the default is a hash character (#), although your system administrator may have changed this. Cincom recommends that you do not change system domain help.



If the modify help information option in your user profile is set to Y, you do not need to use #HLP; instead, you can directly edit help information in a transaction.

====>

Edit Domain Help Information (#DHLP)

YYYY.MM.DD HH:MM PC-

Domain.....

Language.....

Subsystem.....

Title.....

Column Title.....

Description.....

F1-----F3-----F4-----F5-----F6-----F8-----F10-----F11-----F14-----

HELPEXITINSUPDDELFWDEXHELPCLEARFIRST

Enter data in the appropriate fields:

Domain

Description *Required.* Specifies the name of the domain (or field).

Format 1–29 alphanumeric characters

Considerations

- ◆ Domains are defined globally by name in AD/Advantage.
- ◆ The domain name should match the field name in the application.

Language

Description *Required.* Specifies the language in which the help text should display.



The default system language is U.S. English (ENU). Contact your local Cincom representative for other languages supported by AD/Advantage.

Format 3 alphanumeric characters

Consideration If a personal ID has no language specified, the system defaults to the language specified by the administrator.

Subsystem

Description *Required.* Specifies the subsystem to which this domain belongs.

Format 3 alphanumeric characters

Title

Description *Optional.* Specifies the title of this particular help.

Format 1–40 alphanumeric characters

Consideration The title displays at the top of the user's pop-up help screen. The generator also uses *Title* as the label for the field when generating single transactions.

Column Title

- Description

Optional. Specifies the column title of this particular help.
- Format

1–15 alphanumeric characters
- Consideration

When the generator is generating list transactions, it uses the column title as a heading field.

Description

- Description

Required. Specifies the text that displays in the help window when the user presses the Help key.
- Format

1–40 alphanumeric characters on each line, up to 10 lines total

Example of field-level help

In the following example, you create help for a field called CUST_NO:

Edit Domain Help Information (#DHLF)

====>YYYY.MM.DD HH:MM PC-00

Domain.....CUST_NO

Language.....ENU

Subsystem.....DEV

Title.....Customer Number

Column Title.....No.

Description.....The number assigned to the customer.
The fifth digit denotes the region of
the customer: 1 - north
2 - south.

F1-----F3-----F4-----F5-----F6-----F8-----F10-----F11-----F14-----

HELPEXITINSUPDDELFWDEXHELPCLEARFIRST

Step 6: Add field validation #DDEF

AD/Advantage can validate a field entry if you create a domain definition for the field. A domain defines a set of valid values for a field. If you enter values in a field that do not adhere to the domain definition, AD/Advantage does not accept the data and displays a message that the input is invalid. To display the list of valid values, press the Extended Help key while your cursor is on the field in question.

You can create domain definitions using the #DDEF transaction or by writing your own user-validation routine. In addition, you can define domains to subsystems for migration purposes.

Add field validation using #DDEF

To define and edit field validation checks, use the #DDEF transaction shown below. Note the following about domains:

- ◆ AD/Advantage system domains are prefixed with a special character (a # character). You cannot change system domains; if you try, you will get an error.
- ◆ Ensure that your field name exactly matches your domain name; if you have a field called CUSTNO, the domain name must also be CUSTNO.

Edit Domain Definitions (#DDEF)

YYYY.MM.DD HH:MM PC-FF

====>

Domain.....

Field Type....

Low-Range.....

Case Sensitive _ (Y/N)

Date.....

Values

Operators:

/ = Not

= = Equal To

? = Starts

* = Contains

Component..

Program....

View Type.. _ Key Type. _

View Name..

Key Name...

F1-----F3-----F4-----F5-----F6-----F8-----F10-----F11-----F12-----

HELPEXITINSUPDDELFWDEXHELPCLEARPROFILE

Subsystem.. _ Smart Fill.. _

(A,a,X,x,9) SQL-Validation.. _

High Range

Required.. _ Fill _

DateSep... _ Default

Description of Value

_____ or

_____ or

PSW.. _____

PSW.. _____

Ref Name. _____

Enter data in the appropriate fields:

Domain

Description Required. Specifies the name of the domain.

Format 1–29 alphanumeric characters

Consideration The domain name must match the field name in the application.

Subsystem

Description	<i>Required.</i> Specifies the ID of the subsystem. Subsystems are a way of grouping applications from a developer's view. For example, ADV is the subsystem ID for AD/Advantage system functions and DEV is the subsystem ID for the developer subsystem.
Format	3 alphanumeric characters

Smart Fill

Description	Specifies whether the user is allowed to enter a partial value, which AD/Advantage completes when it finds a matching value in the list or file.
Default	(blank)
Options	(blank) The user cannot enter a partial value. Y The user can enter a partial value.

Field Type

Description	Optional. Specifies an edit mask for each position in the field.
Options	A Only upper case alphabetic. X Only upper case alphanumeric. a Both mixed case alphabetic. x Both mixed case alphanumeric. 9 Only numeric.

SQL-Validation

Description	<i>Optional.</i> Specifies whether AD/Advantage should use the domain definition defined in the SQL database or the definition in #DDEF.
Default	(blank)
Options	(blank) AD/Advantage uses the domain definition stored in #DDEF, not in the SQL database. Y AD/Advantage uses the domain definition stored in the SQL database.

Low-Range

Description	Optional. If you specify a range for this domain, specifies the minimum value that is accepted.
Format	1–15 alphanumeric characters

High Range

Description	Optional. If you specify a range for this domain, specifies the maximum value that is accepted.
Format	1–15 alphanumeric characters

Case Sensitive

Description	Optional. Specifies whether the user must enter the value with the case you specify in the Values field.
Default	(blank)
Options	N The user does not have to enter the value in the exact case you entered the domain values. Y The user must enter the value in the exact case you entered the domain values.
Consideration	If you set this field to Y, every possible combination of upper and lower case values must be entered in the domain value list.

Example

User enters	Value field	Case sensitive	Validates
abc	ABC	Y	No
abc	ABC	N	Yes

Required

Description	<i>Optional.</i> Specifies whether the field is required to be entered by the user. The Value specified here is used as the Extended Edit when generating a screen during application generation. Should this value be changed afterwards, you can use #GENDEF to update the screen with the new values.
Default	(blank)
Options	N The field is not required. Y The field is required.

Fill

Description	<i>Optional.</i> Specifies whether the field must contain a valid value in all positions.
Default	(blank)
Options	N Does not have to contain a valid value in all positions. Y Must contain a valid value in all positions.

Date

Description	<i>Optional.</i> Specifies the date format for a date field.
Options	DD.MM.YY DD.MM.YYYY MM.DD.YY MM.DD.YYYY DDMMYY DDMMYYYY MMDDYY MMDDYYYY YYMMDD

DateSep

Description	<i>Optional.</i> Specifies the special character to be used as the date separator.
Default	. (period)
Options	. : / # ! ; * \

Default

Description	<i>Optional.</i> Specifies the default value for the field.
Format	1–30 alphanumeric characters
Consideration	If you change this value, use #GENDEF to update the screen with the new values.

Values

Description	<i>Optional.</i> Specifies a list of valid values for the domain.
Format	1–25 alphanumeric characters; the first character MUST be one of the following operators: = is equal to / is not equal to * contains this value ? begins with this value

Considerations

- ◆ Do not enter a space between the operator and the value.
- ◆ You can enter a maximum number of 55 values.
- ◆ To page through the list of valid values, enter the Previous and Next commands.
- ◆ The user can display the values and their descriptions in a pop-up window by using the Extended Help key.

Description of Value

Description	<i>Optional.</i> Specifies the description of the value.
Format	1–25 alphanumeric characters
Consideration	The user can display the values and their descriptions in a pop-up window using the Extended Help key.

Component (reserved for future use)

Description *Optional.* Specifies the name of a MANTIS component that is included in the program at generation time.

Program

Description *Optional.* If you have written your own MANTIS validation program, specifies the name of that program.

Format *MANTIS-user-name:program-name*

Example EXAMPLES:FRED

is a program called FRED in the MANTIS User EXAMPLES.

Consideration If you want to see a sample validation routine, refer to the program ADV_USR_VALIDATION in the MANTIS MASTER user.

PSW (Mainframe only)

Description *Required* if you made an entry in the Program field. Specifies the program password.

Format 1–15 alphanumeric characters

View Type

Description *Required* if you make an entry in the View Name field (two fields below). Specifies the type of view in the View Name field.

Format 3 alphabetic characters

Options INT Internal File

EXT External File

SQL SQL Table

Key Type

Description	<i>Required</i> if you make entry in the Key Name field (three fields below). Specifies the data type of the key field specified in the Key Name field.
Format	1 alphabetic character
Options	N Numeric T Text (Alphanumeric)

View Name

Description	<i>Optional.</i> The internal or external file view against which the value will be validated.
Consideration	Press the Extended Help key to list all the views in your current MANTIS user. From the Extended Help window, you can then select a view to place in this field. To list views in a different MANTIS user, type the name of the MANTIS user followed by a colon in the View Name field and press the Extended Help key. The views from the MANTIS user you specify display.

PSW (Mainframe only)

Description	<i>Required</i> if you made an entry in the View Name field. Specifies the view name password.
Format	1–15 alphanumeric characters

Key Name

Description	<i>Required</i> if you made an entry in the View Name field. Specifies the name of the key field for the view specified in the View Name field.
--------------------	---

Ref Name

Description	<i>Optional.</i> Specifies a field (usually a definition or description of the key name) that displays beside the key name in the Extended Help window.
--------------------	---

Add field validation by writing a validation routine

In addition to providing you with a transaction to define field domains, AD/Advantage also allows you to write your own validation routine. To do so, perform the following steps:

1. Write a MANTIS program containing the validation rules following the conventions in the example below.
2. Create a Domain Definition record using the Edit Domain Definition transaction (#DDEF):

In #DDEF, make entries in the following fields:

- ◆ **Domain Name.**
- ◆ **Subsystem ID.**
- ◆ **Program Name.** Specify the name of your validation routine.
- ◆ **Program Password.** Specify the password of your validation routine.

Press the Insert key to add the domain definition.



You can also write a generalized validation routine; you do not have to create a separate program for each field.

Example of a user-written validation routine

The following is an example of a user-written validation routine:

```

10 ENTRY VALIDATION(SYST,USRT,USRN,MAPTOP,MAPBOT,MAP,FIELDNAME,FIELD,WILDCARD,OK)
20
30   Description of Parameters:
40       SYST:      Global System Parameter
50       USRT:      Alphanumeric User Parameter
60       USRN:      Numeric User Parameter
70       MAPTOP:    The Header Screen of the current Application
80       MAPBOT:    The Trailer Screen of the current Application
90       MAP:       The Main Screen of the current Application
100      FIELDNAME:  The Name of the Field to be validated
110      FIELD:     The contents of the Field to be validated
110      WILDCARD:   Y, if SMARTFILL is supported
120      OK:        Boolean Variable to control the Program flow
130                  in the calling Main Routine
140
150 TEXT COMMAND(8):COMMAND=SYST(5,26,33):UNPAD COMMAND
160 IF COMMAND="EXHLP"
170   DO SHOW_HELP
180 ELSE
190   DO VALIDATE
200 END
210 EXIT
220 |-----Example of a Validation
230 ENTRY VALIDATE
240 | IF FIELD(-1,-1)<>"A"
250 |   ATTRIBUTE(MAP,FIELD)=SYST(4,1,20):|<-- Contains Screen Attributes
260 |   OK=FALSE:SHOW "This is invalid";
270 |   END
280 EXIT
290 |-----Displaying a help message in the main screen
300 ENTRY SHOW_HELP
310 | SHOW "The last position in the Entry field ,must be A";
320 EXIT

```

If you want to view this example online, it is stored under the MANTIS MASTER user under the name of ADV_USR_VALIDATION.

Step 7: Add the transaction to a menu #MENU

You can add the transactions you develop to a menu using the #MENU transaction. You can do one of the following:

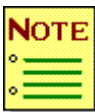
- ◆ Add your transaction to a new menu.
- ◆ Add your transaction to an existing menu.

Add the transaction to a new menu

To add your transaction to a new menu, you must define the menu.

General considerations

- ◆ A menu can have up to 16 transactions.
- ◆ Any of the 16 transactions can be another menu transaction and you can have an unlimited number of nested menus.
- ◆ The menu displays in list or pull-down style depending on the option your system administrator set in #PARM.



Your system may be set up so that every menu must be authorized for individual and group use. For a newly created menu the authorization is systemwide.

To define the menu, use the following #MENU transaction:

```

Edit Menu Definitions (#MENU)
====>                                YYYY.MM.DD   HH:MM   PC-
-----
Menu-ID.... _____ Subsystem ____
Trans-ID... _____
_____
_____
_____
_____
_____
_____
_____
_____
_____
_____
_____
_____
_____
_____
F1-----F2-----F3-----F4-----F5-----F6-----F8-----F9-----F10----
HELP      EDIT      EXIT      INS      UPD      DEL      FWD      PRINT     EXHELP

```

Enter data in the appropriate fields:

Menu-ID

Description	<i>Required.</i> Specifies the menu's transaction ID. When you execute this transaction, the menu displays.
--------------------	---

Format	1–8 alphanumeric characters
---------------	-----------------------------

Consideration Your menu displays in either list-style or pull-down style depending on how your system administrator set up the system.

Description (field untitled on screen)

Description	<i>Optional.</i> Specifies the description of the menu.
--------------------	---

Format	1–40 alphanumeric characters
---------------	------------------------------

Consideration The description displays at the top of each menu; ensure that it is meaningful.

Language (field untitled on screen)

Description *Required.* Specifies the language of the menu description.



The default system language is U.S. English (ENU). Contact your local Cincom representative for other languages supported by AD/Advantage.

Format 3 alphanumeric characters

Subsystem

Description *Required.* Specifies the subsystem to which this menu belongs.

Format 3 alphanumeric characters

Trans-ID

Description The ID of the transaction that you are adding to this menu.

Format 1–8 alphanumeric characters

Consideration If you are adding more than one transaction to the menu, you can use a hyphen (or a blank) in the Trans-ID field to display a separator line to your end user. You could use this line to logically group menu items. For example, in the #EDIT system transaction, a hyphen is placed in the Trans-ID field in between the #DLI (Edit DLI Views) and the #TRN (Edit Transaction Definitions) transactions:

```

                                Edit Menu Definitions (#MENU)
====>                                YYYY.MM.DD HH:MM PC-
-----
Menu-ID... #EDIT__ Edit Functions_____ ENU Subsystem ADV
Trans-ID... #PRG__ Edit Programs
            #SCR__ Edit Screens
            #INT__ Edit Internal Files
            #EXT__ Edit External Files
            #INF__ Edit Interfaces
            #PRO__ Edit Prompts
            #TOT__ Edit Total Views
            #DLI__ Edit DLI Views
              
            #TRN__ Edit Transaction Definitions
            #MENU__ Edit Menu Definitions
            #SYNONYM Edit Synonyms
            #PTYPE__ Edit Prototype Definitions
            #HLP__ Edit Transaction Help
            #DDEF__ Edit Domain Definitions
            #DHLP__ Edit Domain Help Information
F1-----F2-----F3-----F4-----F5-----F6-----F7-----F8-----F9-----F10-----
HELP      EDIT      EXIT      INS      UPD      DEL      FWD      PRINT      EXHELP
```

The resulting menu shown in the following illustration, has a separator line between these two transactions:

Main Selection (#MSYS)						YYYY.MM.DD HH:MM	PC-
#ADMIN	#EDIT	#LIST	#UTILITY	#GEN	#OPTIONS	#REPORTS	
-----+-----+-----							
	Edit Functions						
	1	Edit Programs					
	2	Edit Screens					
	3	Edit Internal Files					
	4	Edit External Files					
	5	Edit Interfaces					
	6	Edit Prompters					
	7	Edit Total Views					
	8	Edit DLI Views					
-----+-----+-----							
	9	Edit Transaction Definitions					
	10	Edit Menu Definitions					
	11	Edit Synonyms					
	12	Edit Prototype Definitions					
	13	Edit Transaction Help					
F1-----F3	14	Edit Domain Definitions				-----F18-----	
HELP	EX	15	Edit Domain Help Information				CANCEL-
						NEXT QUIT	
-----+-----+-----							

This is a logical separation, since the options above the separator line are MANTIS entities and the options below the separator line are AD/Advantage entities.

Example of adding a transaction to a new menu

In the following example, you create a menu called Customer System, under which you add the Customer Maintenance transaction:

```

Edit Menu Definitions (#MENU)                                YYYY.MM.DD HH:MM PC-00
====>
Menu-ID... CUSTSYS Customer System _____ ENU Subsystem DEV
Trans-ID... CUST Customer Maintenance
_____
_____
_____
_____
_____
_____
_____
_____
_____
_____
_____
_____
_____
_____
_____
F1-----F2-----F3-----F4-----F5-----F6-----F8-----F9-----F10----
HELP      EDIT      EXIT      INS       UPD       DEL        FWD       PRINT     EXHELP
I01>Data has been successfully entered

```

Add the transaction to an existing menu

To add your transaction to an existing menu, do the following:

1. Access the menu definition by entering #MENU.*menu-name* at the command line.
2. Enter your transaction in the Trans-ID field. For more information on using the Trans-ID field, see the Trans-ID field description in “Add the transaction to a new menu” on page 116.

Step 8: Test the program

Sometimes it is not possible to test programs stand-alone in the editor because programs expect parameters from other applications. Also, you can lose valuable time running an entire application just to test a single program.

AD/Advantage overcomes these limitations by using four standard system parameters, SYST, USRT, USRN and USRK. When you test your program in the MANTIS Editor, AD/Advantage calls the module ADV_SYS_PARM. ADV_SYS_PARM builds the SYST parameter based on user and transaction information from the #PARM, #ID, and #PFK transactions. SYST controls the flow of the system (see Appendix B of this guide for the complete format of the SYST parameter).

You can display the standard system parameters (SYST, USRT, USRN and USRK) using the #DEBUG transaction. See “[Debug program parameters #DEBUG](#)” on page 185 for more information. You can change the size of these parameters using #DEF. (For more information on #DEF, refer to [MANTIS Administration, OS/390, VSE/ESA](#), P39-5005.

To test your program in the MANTIS Editor:

◆ **Mainframe users:** Perform the following:

1. At the command line, enter *#PRG.program-name*.

The MANTIS Editor work area appears, containing your program.

2. Run the program.

◆ **Non-mainframe users:** Perform the following:

1. At the command line, enter *#PRG.program-name*.

The Program Design Facility displays.

2. At the command line, enter 1 or press PF1.

The MANTIS line editor appears, containing your program.

4

Defining and editing transactions

For developing applications, AD/Advantage provides the following transactions:

Use this transaction	For defining and editing	See
#DLI	DL/I views	"DL/I views #DLI" on page 124.
#DDEF	Domains	"Domain Definitions Screen #DDEF" on page 125.
#DHLP	Domain help	"Domain help information #DHLP" on page 136.
#EXT	External files	"External files #EXT" on page 139.
#INT	Internal files	"Internal files #INT" on page 140.
#INF	Interfaces	"Interfaces #INF" on page 141.
#MENU	Menus	"Menu definitions #MENU" on page 142.
#PRG	Programs	"Programs #PRG" on page 146 .
#PRO	Prompters	"Prompters #PRO" on page 148.
#PTYPE	Prototypes	"Prototype definitions #PTYPE" on page 149.
#SCR	Screens	"Screens #SCR" on page 155.
#SYNONYM	Synonyms	"Synonyms #SYNONYM" on page 156.
#TRN	Transactions	"Transaction definitions #TRN" on page 159.
#HLP	Transaction help	"Transaction-level help #HLP" on page 177.
#PDM	PDM file views	"TOTAL and SUPRA PDM views #PDM" on page 179.

DL/I views #DLI

To define or edit DL/I views, use the #DLI transaction. When you enter #DLI at the command line, the DL/I Call Profile Design Facility displays, as shown below. This facility provides a menu of options to create, maintain, and view DL/I Call Profiles for execution on MANTIS for the mainframe.

```

M A N T I S

DL/I Call Profile Design Facility

Create or update profile definition .. 1
Update profile layout ..... 2
Library Functions ..... 3
List directory of profiles ..... 4
Print Directory of profiles ..... 5
Print completed design ..... 6
Terminate this facility ..... CANCEL

:  :
```

For information on how to use the DL/I Call Profile Design Facility:

- ◆ **Mainframe users:** Refer to *MANTIS DL/I Programming, OS/390, VSE/ESA*, P39-5008.
- ◆ **PC users:** Refer to *MANTIS for Windows Facilities Reference Manual*, P19-2301.

Domain Definitions Screen #DDEF

To define and edit field validation checks, use the #DDEF transaction shown below. Note the following about domains:

- ◆ AD/Advantage system domains are prefixed with a special character (a # character). You cannot change system domains; if you try, you will get an error.
- ◆ Ensure that your field name exactly matches your domain name; if you have a field called CUSTNO, the domain name must also be CUSTNO.

Edit Domain Definitions (#DDEF)				YYYY.MM.DD HH:MM PC-FF
====>				

Domain.....	_____	Subsystem..	___	Smart Fill.. _
Field Type....	_____	(A,a,X,x,9)	SQL-Validation..	_
Low-Range.....	_____	High Range..	_____	
Case Sensitive _	(Y/N)	Required.. _	Fill _	
Date.....	_____	DateSep... _	Default _____	
	Values	Description of Value		
Operators:				
/ = Not	_____	_____		
= = Equal To	_____	_____		
? = Starts	_____	_____		
* = Contains	_____	_____		

Component..	_____	PSW..	_____	or
Program....	_____	PSW..	_____	or
View Type..	___	Key Type. _		
View Name..	_____	PSW..	_____	
Key Name...	_____	Ref Name.	_____	
F1-----F3-----F4-----F5-----F6-----F8-----F10-----F11-----F12-----				
HELP	EXIT	INS	UPD	DEL
				FWD
				EXHELP
				CLEAR
				PROFILE

Enter data in the appropriate fields:

Domain

- Description** *Required.* Specifies the name of the domain.
- Format** 1–29 alphanumeric characters
- Consideration** The domain name must match the field name in the application.

Subsystem

- Description** *Required.* Specifies the ID of the subsystem. Subsystems are a way of grouping applications from a developer’s view. For example, ADV is the subsystem ID for AD/Advantage system functions and DEV is the subsystem ID for the developer subsystem.
- Format** 3 alphanumeric characters

Smart Fill

- Description** Specifies whether the user is allowed to enter a partial value, which AD/Advantage completes when it finds a matching value in the list or file.
- Default** (blank)
- Options** (blank) The user cannot enter a partial value.
- Y The user can enter a partial value.

Field Type

- Description** *Optional.* Specifies an edit mask for each position in the field.
- Options** A Only uppercase alphabetic
- X Only uppercase alphanumeric
- a Both mixed-case alphabetic
- x Both mixed-case alphanumeric
- 9 Only numeric

SQL-Validation

Description	<i>Optional.</i> Specifies whether AD/Advantage should use the domain definition defined in the SQL database or the definition in #DDEF.
Default	(blank)
Options	(blank) AD/Advantage uses the domain definition stored in #DDEF, not in the SQL database. Y AD/Advantage uses the domain definition stored in the SQL database.

Low-Range

Description	<i>Optional.</i> If you specify a range for this domain, specifies the minimum value that is accepted.
Format	1–15 alphanumeric characters

High Range

Description	<i>Optional.</i> If you specify a range for this domain, specifies the maximum value that is accepted.
Format	1–15 alphanumeric characters

Case Sensitive

- Description

Optional. Specifies whether the user must enter the value with the case you specify in the Values field.
- Default

(blank)
- Options

N The user does not have to enter the value in the exact case you entered the domain values.

Y The user must enter the value in the exact case you entered the domain values.
- Consideration

If you set this field to Y, every possible combination of upper and lower case values must be entered in the domain value list.

Example

User enters	Value field	Case sensitive	Validates
abc	ABC	Y	No
abc	ABC	N	Yes

Required

- Description

Optional. Specifies whether the field is required to be entered by the user. The Value specified here is used as the Extended Edit when generating a screen during application generation. Should this value be changed afterwards, you can use #GENDEF to update the screen with the new values.
- Default

(blank)
- Options

N The field is not required.

Y The field is required.

Fill

Description	<i>Optional.</i> Specifies whether the field must contain a valid value in all positions.
Default	(blank)
Options	N Does not have to contain a valid value in all positions. Y Must contain a valid value in all positions.

Date

Description	<i>Optional.</i> Specifies the date format for a date field.
Options	DD.MM.YY DD.MM.YYYY MM.DD.YY MM.DD.YYYY DDMMYY DDMMYYYY MMDDYY MMDDYYYY YYMMDD

DateSep

Description	<i>Optional.</i> Specifies the special character to be used as the date separator.
Default	. (period)
Options	. : / # ! ; * \

Default

Description	<i>Optional.</i> Specifies the default value for the field.
Format	1–30 alphanumeric characters
Consideration	If you change this value, use #GENDEF to update the screen with the new values.

Values

Description	<i>Optional.</i> Specifies a list of valid values for the domain.
Format	1–25 alphanumeric characters; the first character MUST be one of the following operators: = is equal to / is not equal to * contains this value ? begins with this value

Considerations

- ◆ Do not enter a space between the operator and the value.
- ◆ You can enter a maximum number of 55 values.
- ◆ To page through the list of valid values, enter the Previous and Next commands.
- ◆ The user can display the values and their descriptions in a pop-up window by using the Extended Help key.
- ◆ AD/Advantage automatically creates the Extended Help screen based on the values you enter in #DDEF.

Description of Value

Description	<i>Optional.</i> Specifies the description of the value.
Format	1–25 alphanumeric characters
Consideration	The user can display the values and their descriptions in a pop-up window using the Extended Help key.

Component (reserved for future use)

Description	<i>Optional.</i> Specifies the name of a MANTIS component that is included in the program at generation time.
--------------------	---

Program

- Description** *Optional.* If you have written your own MANTIS validation program, specifies the name of that program.
- Format** *MANTIS-user-name;program-name*
- Example** EXAMPLES:FRED
- is a program called FRED in the MANTIS User EXAMPLES.
- Consideration** If you want to see a sample validation routine, refer to the program ADV_USR_VALIDATION in the MANTIS MASTER user.
-

PSW (Mainframe only)

- Description** *Required* if you made an entry in the Program field. Specifies your validation program password.
- Format** 1–15 alphanumeric characters
-

View Type

- Description** *Required* if you make an entry in the View Name field (two fields below). Specifies the view in the View Name field.
- Format** 3 alphabetic characters
- Options** INT Internal File
- EXT External File
- SQL SQL Table
-

Key Type

- Description** *Required* if you make entry in the Key Name field (three fields below). Specifies the data type of the key field specified in the Key Name field.
- Format** 1 alphabetic character
- Options** N Numeric
- T Text (Alphanumeric)
-

View Name

Description *Optional.* Specifies the internal file view, external file view, SQL table, or SQL view against which the value will be validated.

Consideration Press the Extended Help key to list all the views in your current MANTIS user. From the Extended Help window, you can then select a view to place in this field. To list views in a different MANTIS user, type the name of the MANTIS user followed by a colon in the View Name field and press the Extended Help key. The views from the MANTIS user you specify display.

PSW

Description *Required* if you made an entry in the View Name field. Specifies your view name password.

Format 1–15 alphanumeric characters

Key Name

Description *Required* if you made an entry in the View Name field. Specifies the name of the key field for the view specified in the View Name field.

Ref Name

Description *Optional.* Specifies a field (usually a definition or description of the key name) that displays beside the key name in the Extended Help window.

Defining domains using a validation routine

In addition to providing you with a transaction to define field domains, AD/Advantage also allows you to write your own validation routine. To do so, perform the following steps:

1. Write a MANTIS program containing the validation rules following the conventions in the example below.
2. Create a Domain Definition record using the Edit Domain Definition transaction (#DDEF):

In #DDEF, make entries in the following fields:

- ◆ **Domain Name.**
- ◆ **Subsystem ID.**
- ◆ **Program Name.** Specify the name of your validation routine.
- ◆ **Program Password.** Specify the password of your validation routine.

Press the Insert key to add the domain definition.



You can also write a generalized validation routine; you do not have to create a separate program for each field.

Example. The following is an example of a user-written validation routine:

```

10 ENTRY VALIDATION(SYST,USRT,USRN,USRK,MAP,FIELDNAME,FIELD,WILDCARD,OK)
20
30   Description of Parameters:
40       SYST:      Global System Parameter
50       USRT:      Alphanumeric User Parameter
60       USRN:      Numeric User Parameter
70       USRK:      Third User Parameter
80       MAP:       The Main Screen of the current Application
90       FIELDNAME: The Name of the Field to be validated
100      FIELD:      The contents of the Field to be validated
110      WILDCARD:   Y, IF SMARTFILL is SUPPORTED
120      OK:         Boolean Variable to control the Program flow
130                  in the calling Main Routine
140
150 TEXT COMMAND(8):COMMAND=SYST(5,26,33):UNPAD COMMAND
160 IF COMMAND="EXHLP"
170   DO SHOW_HELP
180 ELSE
190   DO VALIDATE
200 END
210 EXIT
220 |-----Example of a Validation
230 ENTRY VALIDATE
240 | IF FIELD(-1,-1)<>"A"
250 |   ATTRIBUTE(MAP,FIELD)=SYST(4,1,20):|<-- Contains Screen Attributes
260 |   OK=FALSE:SHOW "This is invalid";
270 |   END
280 EXIT
290 |-----Displaying a help message in the main screen
300 ENTRY SHOW_HELP
310 | SHOW "The last position in the Entry field ,must be A";
320 EXIT

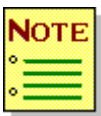
```

If you want to view this example online, it is stored under the MANTIS MASTER user under the name of ADV_USR_VALIDATION.

Domain help information #DHLP

To define or edit field-level help, use the #DHLP transaction shown below.

You can enter 10 lines with a maximum of 40 characters on each line for each domain. The user displays this information by positioning the cursor on the field and pressing the Help key.



AD/Advantage system domain help is prefixed with a special character—the default is a hash character (#), although your system administrator may have changed this. Cincom recommends that you do not change system domain help.

```

Edit Domain Help Information (#DHLP)
====>                                YYYY.MM.DD   HH:MM   PC-
-----
Domain..... _____
Language..... ____
Subsystem..... ____
Title..... _____
Column Title..... _____
Description..... _____
               _____
               _____
               _____
               _____
               _____
               _____
               _____
               _____
               _____
F1-----F3-----F4-----F5-----F6-----F8-----F10-----F11-----F14-----
HELP      EXIT      INS      UPD      DEL      FWD      EXHELP    CLEAR      FIRST

```


Enter data in the appropriate fields:

Domain

Description *Required.* Specifies the name of the domain (or field).

Format 1–29 alphanumeric characters

Considerations

- ◆ Domains are defined globally by name in AD/Advantage.
- ◆ The domain should match the field name in the application.

Language

Description *Required.* Specifies the language in which the help text should display.



The default system language is U.S. English (ENU). Contact your local Cincom representative for other languages supported by AD/Advantage.

Format 3 alphanumeric characters

Subsystem

Description *Required.* Specifies the subsystem to which this domain belongs.

Format 3 alphanumeric characters

Title

Description *Optional.* Specifies the title of this particular help.

Format 1–40 alphanumeric characters

Consideration The title displays at the top of the user's pop-up help screen. The generator also uses *Title* as the screen title when generating single transactions.

Column Title

- Description

Optional. Specifies the column title of this particular help.
- Format

1–15 alphanumeric characters
- Consideration

The generator uses the *Column Title* when generating list transactions.

Description

- Description

Required. Specifies the text that displays in the help window when the user presses the Help key.
- Format

1–40 alphanumeric characters on each line, up to 10 lines total
- Example

In the following example, you create help for a field called CUST_NO:

```

                                Edit Domain Help Information (#DHLP)
====>                                YYYY.MM.DD HH:MM   PC-00
-----
Domain..... CUST_NO
Language..... ENU

Subsystem..... DEV
Title..... Customer Number
Column Title..... No.
Description..... The number assigned to the customer.
                  The fifth digit denotes the region of
                  the customer: 1 - north
                              2 - south.
                  _____
                  _____
                  _____
                  _____
                  _____

F1-----F3-----F4-----F5-----F6-----F8-----F10-----F11-----F14-----
HELP      EXIT      INS      UPD      DEL      FWD      EXHELP    CLEAR      FIRST
```

External files #EXT

To define or edit external files, use the #EXT transaction. When you enter #EXT, the MANTIS External File View Design Facility displays. This facility enables you to design and create external file views for file systems such as VSAM, RMS, C-ISAM and others.

```

M A N T I S

External File View Design Facility

Create or update file views ..... 1
Update file view layout ..... 2
Library functions ..... 3
Directory of file views ..... 4
Print completed design ..... 5
List allowed external files ..... 6
Terminate this facility ..... CANCEL

:  :
```

For information on how to use the External File View Design Facility:

- ◆ **Mainframe users:** Refer to *MANTIS Facilities, OS/390, VSE/ESA*, P39-5001.
- ◆ **UNIX and OpenVMS users:** Refer to *MANTIS Facilities, OpenVMS/UNIX*, P39-1300.
- ◆ **PC users:** Refer to *MANTIS for Windows Facilities Reference Manual*, P19-2301.

Internal files #INT

To define or edit internal files, use the #INT transaction. When you enter #INT, the MANTIS File Design Facility displays. This facility enables you to design and create MANTIS files.

```

M A N T I S

File Design Facility

```

```

Create or update file profiles ..... 1
Update record layout ..... 2
Library functions ..... 3
Directory of file profiles ..... 4
Print completed design ..... 5
Terminate this facility ..... CANCEL

```

```

:

```

For information on how to use the MANTIS File Design Facility:

- ◆ **Mainframe users:** Refer to *MANTIS Facilities, OS/390, VSE/ESA*, P39-5001.
- ◆ **UNIX and OpenVMS users:** Refer to *MANTIS Facilities, OpenVMS/UNIX*, P39-1300.
- ◆ **PC users:** Refer to *MANTIS for Windows Facilities Reference Manual*, P19-2301.

Interfaces #INF

To define or edit interfaces, use the #INF transaction. When you enter #INF, the MANTIS Interface Design Facility displays. This facility enables you to design and save new interface profiles and update and maintain existing interface profiles.

```

                                M A N T I S

                                Interface Design Facility

                                Create or update interface profile ... 1
                                Update area layout ..... 2
                                Library functions ..... 3
                                Directory of interfaces ..... 4
                                Print completed design ..... 5
                                Terminate this facility ..... CANCEL

                                :      :

```

For information on how to use the Interface Design Facility:

- ◆ **Mainframe users:** Refer to *MANTIS Facilities, OS/390, VSE/ESA*, P39-5001.
- ◆ **UNIX and OpenVMS users:** Refer to *MANTIS Facilities, OpenVMS/UNIX*, P39-1300.
- ◆ **PC users:** Refer to *MANTIS for Windows Facilities Reference Manual*, P19-2301.

Menu definitions #MENU

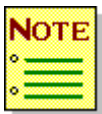
To define or edit menu definitions, use the #MENU transaction shown below. When you define a menu, AD/Advantage automatically creates a transaction definition for that menu. You can view the transaction definition created by the system by using #TRNL (list transactions) or #TRN.*menu-transaction-ID*.

```

Edit Menu Definitions (#MENU)
====>                                YYYY.MM.DD   HH:MM   PC-
-----
Menu-ID.... _____ Subsystem ____
Trans-ID... _____
          |_____
          |_____
          |_____
          |_____
          |_____
          |_____
          |_____
          |_____
          |_____
          |_____
          |_____
          |_____
          |_____
          |_____
          |_____
F1-----F2-----F3-----F4-----F5-----F6-----F8-----F9-----F10----
HELP     EDIT      EXIT       INS        UPD         DEL        FWD        PRINT    EXHELP
```

General considerations

- ◆ A menu can have up to 16 transactions.
- ◆ Any of the 16 transactions can be another menu transaction and you may have an unlimited number of nested menus.
- ◆ The menu displays in list or pull-down style depending on the option your system administrator set in #PARM.



Your system may be configured so that every menu must be authorized for individual and group use. If this is the case, ensure that either you or your system administrator authorizes your newly created menu for your personal ID and any other personal IDs or groups that you want to access the transaction.

Enter data in the appropriate fields:

Menu-ID

Description *Required.* The menu's transaction ID. When you execute this transaction, the menu displays.

Format 1–8 alphanumeric characters

Consideration Your menu displays in either list-style or pull-down style depending on how your system administrator set up the system.

Description (field untitled on screen)

Description *Optional.* Specifies the description of the menu.

Format 1–40 alphanumeric characters

Consideration The description displays at the top of each menu; ensure that it is meaningful.

Language (field untitled on screen)

Description *Required.* Specifies the language of the menu description.



The default system language is U.S. English (ENU). Contact your local Cincom representative for other languages supported by AD/Advantage.

Format 3 alphanumeric characters

Subsystem

Description *Required.* Specifies the subsystem to which this menu belongs.

Format 3 alphanumeric characters

Consideration For a list of valid subsystem IDs, press the Extended Help key.

Trans-ID

Description The ID of the transaction that you are adding to this menu.

Format 1–8 alphanumeric characters

Consideration If you are adding more than one transaction to the menu, you can use a hyphen (or a blank) in the Trans-ID field to display a separator line to your end user. You can use this line to logically group menu items. For example, in the #EDIT system transaction, place a hyphen in the Trans-ID field in between the #DLI (Edit DLI Views) and the #TRN (Edit Transaction Definitions) transactions:

```

                                Edit Menu Definitions (#MENU)
====>                                YYYY.MM.DD HH:MM PC-
-----
Menu-ID... #EDIT__ Edit Functions_____ ENU Subsystem ADV
Trans-ID... #PRG__ Edit Programs
            #SCR__ Edit Screens
            #INT__ Edit Internal Files
            #EXT__ Edit External Files
            #INF__ Edit Interfaces
            #PRO__ Edit Prompters
            #TOT__ Edit Total Views
            #DLI__ Edit DLI Views
              
            #TRN__ Edit Transaction Definitions
            #MENU__ Edit Menu Definitions
            #SYNONYM Edit Synonyms
            #PTYPE__ Edit Prototype Definitions
            #HLP__ Edit Transaction Help
            #DDEF__ Edit Domain Definitions
            #DHLP__ Edit Domain Help Information
F1-----F2-----F3-----F4-----F5-----F6-----F8-----F9-----F10-----
HELP      EDIT      EXIT      INS      UPD      DEL      FWD      PRINT     EXHELP
```


The resulting menu has a separator line between these two transactions, as shown below:

```

====>                                Main Selection (#SYS)                                YYYY.MM.DD HH:MM PC-
-----
#EDIT      #LIST      #UTILITY  #GEN      #OPTIONS  #REPORTS
+-----+-----+
-| Edit Functions                                         |-----|
| 1  Edit Programs                                     |         |
| 2  Edit Screens                                       |         |
| 3  Edit Internal Files                               |         |
| 4  Edit External Files                               |         |
| 5  Edit Interfaces                                   |         |
| 6  Edit Prompters                                    |         |
| 7  Edit PDM Views                                    |         |
| 8  Edit DLI Views                                    |         |
+-----+-----+
| 9  Edit Transaction Definitions                       |         |
|10  Edit Menu Definitions                             |         |
|11  Edit Synonyms                                     |         |
|12  Edit Prototype Definitions                         |         |
|13  Edit Transaction Help                             |         |
F|14  Edit Domain Definitions                           |-----F17-----F18-----CANCEL-
H|15  Edit Domain Help Information                       |FILE  PREV      NEXT      QUIT
+-----+-----+

```

This is a logical separation because the options above the separator line are MANTIS entities and the options below the separator line are AD/Advantage entities.

Programs #PRG

To define or edit programs, use the #PRG transaction. The #PRG transaction has different results, depending on whether you are using it:

- ◆ **On a mainframe.** When you enter #PRG, the #PRG transaction accesses the MANTIS Full Screen Editor. See “[Program \(Mainframe\) #PRG](#),” below.
- ◆ **On a non-mainframe platform.** When you enter #PRG, the MANTIS Program Design Facility appears. See “[Program \(non-Mainframe\) #PRG](#)” on page 147.

Program (Mainframe) #PRG

To create or edit a program on the mainframe, use the #PRG transaction. #PRG accesses the MANTIS Full Screen Editor, shown below. You can then create or edit your program. EDIT --- EXAMPLES:APPLICATIONS

COLUMNS 1 73

```

COMMAND ==>                                SCROLL ==> PAGE
***** START OF PROGRAM *****
00010 ENTRY APPLICATIONS
00020 .SCREEN MAP( "APPLICATIONS" )
00030 .UNTIL MAP="CANCEL"
00040 ..CONVERSE MAP
00050 ..WHEN MAP="PF1"OR OPTION=1
00060 ...CHAIN"GAMES"
00070 ..WHEN MAP="PF2"OR OPTION=2
00080 ...CHAIN"INDUSTRIAL"
00090 ..WHEN MAP="PF3"OR OPTION=3
00100 ...CHAIN"PRICES"
00110 ..WHEN MAP="PF4"OR OPTION=4
00120 ...CHAIN"REGRESSION"
00130 ..WHEN MAP="PF5"OR OPTION=5
00140 ...CHAIN"FACILITY"
00180 ..END
00190 .END
00200 .STOP
00210 EXIT
***** END OF PROGRAM *****

```

For more information on using the MANTIS Full Screen Editor, refer to [MANTIS Program Design and Editing, OS/390, VSE/ESA](#), P39-5013.

Program (non-Mainframe) #PRG

To create or edit a non-mainframe program, use the #PRG transaction. When you enter #PRG, the MANTIS Program Design Facility appears. This facility provides a menu of options to create, maintain, view, and print MANTIS programs.

For information on how to use the Program Design Facility:

- ◆ **Mainframe users:** Refer to *MANTIS Program Design and Editing, OS/390, VSE/ESA*, P39-5013.
- ◆ **UNIX and OpenVMS users:** Refer to *MANTIS Facilities, OpenVMS/UNIX*, P39-1300.
- ◆ **PC users:** Refer to *MANTIS for Windows Facilities Reference Manual*, P19-2301.

Prompters #PRO

To create or edit a prompter, use the #PRO transaction. When you enter #PRO at the command line, the MANTIS Prompter Design Facility displays. This facility enables you to create and save new prompters and to update and maintain existing prompters.

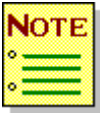
```

M A N T I S

Prompter Design Facility

Create or update a prompter ..... 1
Set tabs ..... 2
Library functions ..... 3
Directory of prompters ..... 4
Display completed design ..... 5
Print completed design ..... 6
Terminate this facility ..... CANCEL

: :
```



Cincom supplies #PRO for compatibility with MANTIS. To define help for AD/Advantage transactions, use #HLP. To define help for AD/Advantage fields, use #DHLP.

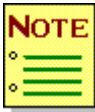
For information on using the Prompter Design Facility:

- ◆ **Mainframe users:** Refer to *MANTIS Facilities, OS/390, VSE/ESA*, P39-5001.
- ◆ **UNIX and OpenVMS users:** Refer to *MANTIS Facilities, OpenVMS/UNIX*, P39-1300.
- ◆ **PC users:** Refer to *MANTIS for Windows Facilities Reference Manual*, P19-2301.

Prototype definitions #PTYPE

To define or edit a prototype definition, use the #PTYPE transaction shown below. Once you define a prototype of an AD/Advantage application, you can run the prototype without generation.

When you define a prototype, AD/Advantage automatically creates a transaction definition for that prototype. The screen for the prototype is built dynamically from the definitions contained within the file view. However, you can also use an existing screen. You can view the transaction definition created by the system by using #TRNL (list transactions) or #TRN.*prototype-name*.



The prototype will only run against internal or external files views. You cannot prototype a list transaction.

```

                                Edit Prototype Definitions (#PTYPE)
                                YYYY.MM.DD HH:MM PC-
=====
Trans-ID..... _____
Subsystem..... ____
Description.... _____

Screen..... _____
File Type..... ____
Primary File... _____
Records/Screen. 1
Commands
Insert..... _
Update..... _
Delete..... _ Confirm-Delete. _
Get-Back.....
Get-Forward.... _
First..... _
Last..... _
Clear Screen... _
F1-----F2-----F3-----F4-----F5-----F6-----F8-----F10-----F11-----
HELP      EDIT      EXIT      INS      UPD      DEL      FWD      EXHELP    CLEAR

```

Enter data in the appropriate fields:

Trans-ID

Description *Required.* The transaction ID of the prototype.

Format 1–8 alphanumeric characters

Subsystem

Description *Required.* Specifies the subsystem to which the transaction belongs.

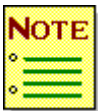
Description

Description *Optional.* Specifies the description of the prototype.

Format 1–40 alphanumeric characters

Language

Description *Required.* Specifies the 3-character code of the language in which the description displays.



The default system language is U.S. English (ENU). Contact your local Cincom representative for other languages supported by AD/Advantage.

Default The code set by your system administrator in the #PARM (edit system parameters) transaction

Format 3 alphanumeric characters

Screen

Description *Optional.* Specifies the name of the screen used by the prototype, including the user-name.

Format 1–27 alphanumeric characters, with the user name first followed by a colon, then the screen name

Example EXAMPLES:ABC is screen called ABC in user the Examples MANTIS user.

File Type

Description	<i>Required</i> if you made an entry in the Primary File field. Specifies the primary file.
Format	3 alphabetic characters
Options	INT Internal file EXT External file view

Primary File

Description	<i>Optional.</i> The primary file used by this prototype. The file is used by the Prototype and Generation functions.
Format	1–29 alphanumeric characters, with the user name first followed by a colon, then the primary file name
Example	EXAMPLES:TOM is primary file called TOM in the Examples MANTIS user.

Records/Screen

Description	<i>Display.</i> Specifies the number of records to be displayed on the screen for the primary file.
Consideration	Currently #PTYPE only supports one record per screen.

Commands

Insert

Description	<i>Optional.</i> Specifies whether the prototype allows you to insert records.
Default	(blank)
Options	(blank) Prototype does not allow the user to insert records. Y Prototype allows the user to insert records.

Update

Description	Specifies whether the prototype allows you to update a record.
Default	(blank)
Options	(blank) Prototype does not allow you to update records. Y Prototype allows you to update records.

Delete

Description	<i>Optional.</i> Specifies whether the prototype allows you to delete data records from the primary file.
Default	(blank)
Options	(blank) Prototype does not allow you to delete records. Y Prototype allows you to delete records.

Confirm-Delete

Description	<i>Optional.</i> Specifies whether the prototype prompts you to confirm deletions.
Default	(blank)
Options	(blank) Prototype does not prompt you to confirm deletions. Y Prototype prompts you to confirm deletions.
Consideration	When set to Y, the prototype displays a Confirm Delete window and requires the user to position the cursor to 'YES' to perform the deletions.

Get Backwards

Description	<i>Optional.</i> Specifies whether the prototype allows you to read the previous records of the primary file.
Default	(blank)
Options	(blank) Prototype does not allow you to read previous records in a primary file. Y Prototype allows you to read previous records in a primary file.

Get Forward

Description	<i>Optional.</i> Specifies whether the prototype allows you to read the next record in the primary file.
Default	(blank)
Options	(blank) Prototype does not allow you to read the next record in a primary file. Y Prototype allows you to read the next record in a primary file.

First

Description	<i>Optional.</i> Specifies whether the prototype allows you to read the first record in the primary file.
Default	(blank)
Options	(blank) Prototype does not allow you to read the first record in a primary file. Y Prototype allows you to read the first record in a primary file.

Last

Description	<i>Optional.</i> Specifies whether the prototype allows you to read the last record in the primary file.
Default	(blank)
Options	(blank) Prototype does not allow you to read the last record in a primary file. Y Prototype allows you to read the last record in a primary file.

Clear Screen

Description	<i>Optional.</i> Specifies whether the prototype allows you to clear the screen.
Default	(blank)
Options	(blank) Prototype does not allow you to clear the screen. Y Prototype allows you to clear the screen.

To transform a prototype (test) application into a production application, enter the prototype transaction in #TRN and add further information to make the prototype a formal transaction. For more information on #TRN, see [“Step 2: Define the transaction #TRN”](#) on page 70 of this guide.

Screens #SCR

To define or edit screen definitions, use the #SCR transaction. When you enter #SCR at the command line, the MANTIS Screen Design Facility displays. This facility enables you to create and save screen designs and to update and maintain existing screen designs.

```

M A N T I S

Screen Design Facility

Create or update a screen ..... 1
Update field specifications ..... 2
List field specifications ..... 3
Update repeat specifications ..... 4
List repeat specifications ..... 5
Display completed design ..... 6
Library functions ..... 7
Directory of screens ..... 8
Print completed design ..... 9
Terminate this facility ..... CANCEL

:  :
```

For information on using the Screen Design Facility:

- ◆ **Mainframe users:** Refer to *MANTIS Facilities, OS/390, VSE/ESA*, P39-5001.
- ◆ **UNIX and OpenVMS users:** Refer to *MANTIS Facilities, OpenVMS/UNIX*, P39-1300.
- ◆ **PC users:** Refer to *MANTIS for Windows Facilities Reference Manual*, P19-2301.

Synonyms #SYNONYM

To define or edit synonyms, use the #SYNONYM transaction shown below. A synonym is another name for a transaction, typically an abbreviation or a more meaningful name.

====>

Edit Synonyms (#SYNONYM)

YYYY.MM.DD HH:MM PC-

Personal-ID..... ADMIN

Synonym.....

Trans-ID.....

Parameter.....

F1-----F3-----F4-----F6-----F8-----F10-----F11-----F14-----CANCEL-

HELPEXITINSDELFWDEXHELPCLEARFIRSTQUIT

General considerations

- ◆ To use synonyms, your system administrator must configure AD/Advantage to allow synonyms.
- ◆ You can assign synonyms for personal IDs only, not for groups or the entire system.

Enter data in the appropriate fields:

Personal ID

Description *Display.* Specifies the personal ID under which you are currently signed on to AD/Advantage

Synonym

Description *Required.* Specifies another name for the transaction, whether it is an abbreviation of the transaction name or a more meaningful name.

Format 1–8 alphanumeric characters

Trans-ID

Description *Required.* Specifies the transaction ID to which the synonym applies.

Format 1–8 alphanumeric characters

Parameter

Description *Optional.* Specifies parameter(s) that you can pass to the transaction specified in the Trans-ID field.

Consideration If you enter more than one parameter in the parameter field: (1) *do not* place a period before your first parameter, and (2) *do* place a period between parameters. See the example that follows.

Synonym examples

Passing one parameter to the transaction. You have a transaction called EMPL that allows you to insert new employees into your database system. You also have an employee named Smith that moves frequently. Therefore, you want to define a synonym that calls the EMPL transaction and automatically displays the SMITH record, ready for you to update. To do this, you would fill out the fields as follows:

- ◆ Synonym: SMITH
- ◆ Trans-ID: EMPL
- ◆ Parameter: SMITH

Passing multiple parameters to the transaction. You spend much of your time defining transactions. However, you do not want to spend the time going through the menus to access #TRN. Therefore, you create a synonym that signs you on to the system and accesses the #TRN transaction. To do this, you would fill out the fields as follows:

- ◆ Synonym: SIGNTRN
- ◆ Trans-ID: #SIGNON
- ◆ Parameter: DEVELOP.DEVELOP.#TRN

Transaction definitions #TRN

To define or edit transactions, use the #TRN transaction shown below.

You can define transactions for:

- ◆ AD/Advantage programs (programs generated or written to conform to AD/Advantage guidelines).
- ◆ An existing MANTIS program.
- ◆ A 3GL program (COBOL, C, Assembler, etc.).

To define the transaction, use the #TRN transaction shown below:

```

====>                                Edit Transaction Definitions (#TRN)                                YYYY.MM.DD HH:MM PC-
-----
Trans-ID..... Desc _____ ENU
Subsystem..... Program _____ Type... _
User Data..... _____
SQL-Options..... _
Trans Journal... _ System-Language.. _ Disabled.. _ Disable Tran-Path.. _
-----
                                Commands
General Get-Back.. _ Get-Forw.. _ Confirm... _ Print.... _ Search... _
      First..... _ Last..... _ Left..... _ Right..... _ Clear Scr _
Single Insert.... _ Update.... _ Delete.... _ Generate.. _ Execute.. _
  List Insert.... _ Update.... _ Delete.... _ Select.... _ -> _____
Mixed Previous.. _ Next..... _ Top..... _ Bottom.... _
  User Cmd1..... _ Cmd2..... _ Cmd3..... _ Cmd4..... _ Cmd5..... _
-----
                                Generation-Options
Screen..... _____
File Type..... _____
Primary File.... _____ Records on Screen.. 0
Secondary File.. _____ Records on Screen.. 0
F1-----F3-----F8-----F10-----F14-----CANCEL-----
HELP      EXIT      FORWARD EXHLP      FIRST      CANCEL

```

Enter data in the appropriate fields:

Trans-ID

- Description

Required. Specifies the ID code of the transaction.
- Format

1–8 alphanumeric characters. The first character must not begin with the hash sign (#) because AD/Advantage system transactions begin with a hash sign (#).

Desc

- Description

Optional. Specifies the transaction description that displays centered on the top line of the transaction.
- Format

1–40 alphanumeric characters
- Consideration

You can use the Edit key to display a pop-up window that looks like the following:

Description	Language
	ENU

You can define the transaction description for up to five languages.

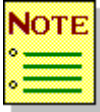


The default system language is U.S. English (ENU). Contact your local Cincom representative for other languages supported by AD/Advantage.

Language (field untitled on screen)

Description *Optional.* Specifies the language of the transaction description.

Default ENU (U.S. English)



The default system language is U.S. English (ENU). Contact your local Cincom representative for other languages supported by AD/Advantage.

Format 3 alphanumeric characters

Subsystem

Description *Required.* Specifies the subsystem to which this transactions belongs.

Format 3 alphanumeric characters

Program

Description *Required.* Specifies the name of the program to be executed.

Format *MANTIS-user-name;program-name*

Considerations

- ◆ If you do not specify a MANTIS user name, AD/Advantage inserts the current MANTIS user name when you insert or update the record.
- ◆ Press the Edit key while on this field to invoke the MANTIS Program Design Facility.

Type

Description	<i>Required.</i> Specifies the transaction type code.
Default	(blank)
Options	A AD/Advantage User Application 4 MANTIS Application 3 3GL Program
Consideration	The AD/Advantage driver uses this code to determine how to process the transaction.

User Data

Description	<i>Optional.</i> Specifies one of the following: <ul style="list-style-type: none">◆ <i>If you are developing a MANTIS transaction</i>, specifies the number of parameters the MANTIS program is expecting.◆ <i>If you want to use a user-developed template instead of the default determined by #GENIND or #GENSQL</i>, specifies the name of the user-developed template.◆ <i>If you are developing an end-user application</i>, specifies special processing information that SYST can access.◆ If this is a menu transaction, you can override the menu program name (VPF:ADV_MNU) by entering a new menu program in the User Data field.
--------------------	---

Example	<p>The system transaction #SCR calls the MANTIS Screen Design facility. In the transaction definition of #SCR, the User Data field contains the following:</p> <p><code>/MANTIS/1</code></p> <p>AD/Advantage's External Program Handler reads contents of the User Data field and knows that #SCR maps to a MANTIS facility (/MANTIS) and that when you use #SCR you can pass one parameter to it (/1).</p> <p>Similarly, you can define your existing MANTIS programs in AD/Advantage by entering specifications in the User Data field.</p>
----------------	---

SQL Options

Description *Optional.* Specifies the SQL password, personal ID, and database name. Press the Edit key to display a pop-up window to enter these values:

SQL Options

User-ID. . _____

Password. _____

Database. _____

User-ID

Description *Optional.* Specifies the SQL user ID.

Password

Description *Optional.* Specifies the SQL user password.

Database

Description *Optional.* Specifies the SQL database name.

Consideration Typically, your system administrator globally, or by individual personal ID, sets an SQL user ID, password, and database name. However, if you need different sign-on parameters or a different database for this transaction, specify them here. The options you define here override the global options your system administrator specified.

Trans Journal

Description *Optional.* Specifies whether you want AD/Advantage to journal this transaction to the audit trail.

Default (blank)

Options (blank) Does not journal this transaction to the audit trail.

Y Journals this transaction to the audit trail.

Considerations

- ◆ Your system administrator can set up your system so that every transaction is journalled. If this is the case, your transaction will be journalled even if you specify blank for this field.
- ◆ To display reports such as the audit trail list (#ACCL1), most used AD/Advantage transactions (#ACCL2), and daily transactions by hour (#ACCL3), the transaction must be journalled (set to Y).

System-Language

Description *Optional.* Specifies whether the transaction should use the system language or the language defined in the user's personal ID. (Your system administrator defines the system language in the Edit System Parameters transaction (#PARM)).

Default (blank)

Options (blank) Transaction uses the language defined in the user's personal ID. Note that you must define the screen in this language as well.

Y Transaction uses the system language.

Disabled

Description	<i>Optional</i> Specifies whether to disable the transaction.
Default	(blank)
Options	(blank) Enables the transaction. Y Disables the transaction. A user will not be able to run the transaction if you specify Y. To enable the transaction again, set this field to blank.
Example	You might disable a transaction if it must be changed and you do not want anyone using it until you make the changes.

Disable Trans Path

Description	<i>Optional.</i> Specifies whether AD/Advantage should add this transaction to the user's transaction path.
Default	(blank)
Options	(blank) System places this transaction in the user's transaction path. Y System does not place this transaction in the user's transaction path. Therefore, when the user presses the Exit key in a subsequent transaction, he/she will not return to this transaction.
Consideration	For complete details on transaction pathing, see " Using your transaction path " on page 52.

General commands

These are commands you can specify regardless of whether you are creating a single, list or mixed program.

Get-Back

Description	<i>Optional.</i> Specifies whether you can read previous records in the primary file when using this transaction.
Default	(blank)
Options	(blank) Cannot read previous records in the primary file. Y Can read previous records in the primary file.

Get-Forw

Description	<i>Optional.</i> Specifies whether you can read next records in the primary file when using this transaction.
Default	(blank)
Options	(blank) Cannot read next records in the primary file. Y Can read next records in the primary file.

Confirm

Description	<i>Optional.</i> Specifies whether the transaction will prompt you to confirm a deletion.
Default	(blank)
Options	(blank) Transaction does not prompt you to confirm a deletion. Y Transaction does prompt you to confirm a deletion.
Consideration	If set to Y, a window displays which prompts you to position the cursor to 'YES' to perform the deletion.

Print

Description	<i>Optional.</i> Specifies whether you can use the print command when using this transaction.
Default	(blank)
Options	(blank) Cannot use the print command when using this transaction. Y Can use the print command when using this transaction.
Consideration	If you allow printing from this transaction, the contents of the screen automatically print to the printer or file defined in your personal ID. You can change your printer ID by pressing the Profile key.

Search

Description	<i>Optional.</i> Specifies whether you can search for records in the primary file when using this transaction.
Default	(blank)
Options	(blank) Cannot search for records in the primary file. Y Can search for records in the primary file.

First

Description	<i>Optional.</i> Specifies whether you can read the first record in the primary file when using this transaction.
Default	(blank)
Options	(blank) Cannot read the first record in the primary file. Y Can read the first record in the primary file.

Last

Description	<i>Optional.</i> Specifies whether you can read the last record in the primary file when using this transaction.
Default	(blank)
Options	(blank) Cannot read the last record in the primary file. Y Can read the last record in the primary file.

Left

Description	<i>Optional.</i> Specifies whether you can scroll the transaction screen to the left.
Default	(blank)
Options	(blank) Cannot scroll the transaction screen to the left. Y Can scroll the transaction screen to the left.

Right

Description	<i>Optional.</i> Specifies whether you can scroll the transaction screen to the right.
Default	(blank)
Options	(blank) Cannot scroll the transaction screen to the right. Y Can scroll the transaction screen to the right.

Clear Scr

Description	<i>Optional.</i> Specifies whether you can clear the screen when using this transaction.
Default	(blank)
Options	(blank) Does not clear the screen. Y Clears the screen.

Single commands

Use Single commands when defining a transaction for a single or mixed processing transactions.

Insert

Description	<i>Optional.</i> Specifies whether you can insert records when using this transaction.
Default	(blank)
Options	(blank) Cannot insert records when using this transaction. Y Can insert records when using this transaction.

Update

Description	<i>Optional.</i> Specifies whether you can update records when using this transaction.
Default	(blank)
Options	(blank) Cannot update records when using this transaction. Y Can update records when using this transaction.

Delete

Description	<i>Optional.</i> Specifies whether you can delete records when using this transaction.
Default	(blank)
Options	(blank) Cannot delete records when using this transaction. Y Can delete records when using this transaction.

Generate

Description *Optional.* Specifies whether you can generate a screen, program, or other entity when using this transaction.

Default (blank)

Options (blank) Cannot generate a screen, program, or other entity.

Y Can generate a screen, program, or other entity.

Consideration The Generate command is used by the generators in AD/A II to generate entities. You can use this command as well in your application. You must code the logic for this command into your program manually.

Execute

Description *Optional.* Specifies whether you can display a pop-up window to enter more information than can fit on a screen.

Default (blank)

Options (blank) Cannot display a pop-up window to enter additional information than can fit on a screen.

Y Can display a pop-up window to enter additional information than can fit on a screen.

List commands

Use List commands when defining a transaction for list or mixed processing transactions..

Insert

Description	<i>Optional.</i> Specifies whether you can insert records when using this transaction.
Default	(blank)
Options	(blank) Cannot insert records when using this transaction. Y Can insert records when using this transaction.

Update

Description	<i>Optional.</i> Specifies whether you can update records when using this transaction.
Default	(blank)
Options	(blank) Cannot update records when using this transaction. Y Can update records when using this transaction.

Delete

Description	<i>Optional.</i> Specifies whether you can delete records when using this transaction.
Default	(blank)
Options	(blank) Cannot delete records when using this transaction. Y Can delete records when using this transaction.

Select

Description	<i>Optional.</i> Specifies whether you can select a record in a list transaction.
Default	(blank)
Options	(blank) Cannot select a record. Y Can select a record.

Select Trans-ID (field untitled on screen)

Description	<i>Required</i> if you set the Select field to Y. In a list transaction, specifies which transaction runs when the user enters the Select command in the Selection field.
Format	1–8 alphanumeric characters
Example	You define a transaction called CUSTL that lists all your customer records, any of which the user can select to make updates. In the transaction definition of CUSTL, enter Y in the Select field and CUST in the Select Trans-ID field. Using these entries, AD/Advantage knows to run the CUST transaction (with the name of the customer, shown next to the Selection field in CUSTL, being passed as the parameter to CUST).

Mixed commands

These are commands you can specify when defining a transaction for a mixed processing program.

Previous

Description *Optional.* Specifies whether you can read the previous record in the secondary file when using this transaction.

Default (blank)

Options (blank) Cannot read the previous record in the secondary file.
Y Can read the previous record in the secondary file.

Consideration This command supports only mainframe users with SUPRA PDM and Index files at this time.

Next

Description *Optional.* Specifies whether you can read the next record in the secondary file when using this transaction.

Default (blank)

Options (blank) Cannot read the next record in the secondary file.
Y Can read the next record in the secondary file.

Top

Description *Optional.* Specifies whether you can read the first record in the secondary file when using this transaction.

Default (blank)

Options (blank) Cannot read the first record in the secondary file.
Y Can read the first record in the secondary file.

Bottom

Description *Optional.* Specifies whether you can read the last record in the secondary file when using this transaction.

Default (blank)

Options (blank) Cannot read the last record in the secondary file.
Y Can read the last record in the secondary file.

User commands

These are customized commands, or those you can define that are additional to those offered by AD/Advantage.

User Cmd 1-5

Description *Optional.* Specifies additional commands to those supported by the AD/Advantage generator.

To implement these commands, you must do the following:

1. Use the #PFK transaction to define a key for one or more user commands (UCMD1–UCMD5).
2. Enter Y in the User Command fields listed on this screen (Cmd1–Cmd5) for those commands that you want to activate.
3. Access your generated or manually coded program and specify what to do when the user issues one of the user commands.

Generation-Options

Screen

Description *Required* if you are defining a transaction that generates a screen. Specifies the name of the screen generated by this transaction

Format *user-name:screen-name*

Example EXAMPLES:ABC is screen ABC in user Examples.

Consideration If you do not specify a MANTIS user name, AD/Advantage inserts the current MANTIS user name when you insert or update the record.

File Type

Description *Required* if you are defining a transaction that uses a file. Specifies the type of file defined for the transaction.

Options

INT Internal file

EXT External file view

PDM SUPRA PDM file view

DLI DL/I View

RDM SUPRA RDM

INF Interface View

SQL SQL table or view

Primary File

Description *Required* if you want to generate a Single, List, or Mixed transaction. Specifies the primary file used by this transaction.

Records on Screen (for the Primary file)

Description *Required* if you completed the Primary File field. Specifies the number of records to be displayed on the screen for the primary file.

Default 0

Secondary File

Description *Required* if you want to generate a Mixed transaction. Specifies the secondary file used by this transaction.

Records on Screen (for the Secondary file)

Description *Required* if you completed the Secondary file field. Specifies the number of records that should display on the screen for the secondary file.

Default 0

Example transaction definition

In the example below, you define a transaction called CUST, which is generated from the CUST internal file in the EXAMPLES MANTIS User.

It is a single record transaction for maintenance purposes, so specify Y for the Insert, Update, and Delete commands.



You did not define List or Mixed commands because list commands are only for transactions with more than one record on the screen, and mixed commands are only used when a secondary file is specified.

The program that generates will be called CUST. It will reside in our current MANTIS User, EXAMPLES. The screen will also be called CUST and reside in the our current MANTIS User.

```

                                Edit Transaction Definitions (#TRN)
====>                                YYYY.MM.DD HH:MM  PC-00
-----
Trans-ID..... CUST      Desc Customer Maintenance      ENU
Subsystem..... DEV      Program EXAMPLES:CUST          Type... A
User Data.....
SQL-Options....
Trans Journal... _ System-Language.. _ Disabled.. _ Transaction-Path... _
-----
                                Commands
-----
General Get-Back.. _ Get-Forw.. Y Confirm... Y Print..... _ Search... Y
      First..... Y Last..... _ Left..... _ Right..... _ Clear Scr _
Single Insert.... Y Update.... Y Delete.... Y Generate.. Y Execute.. _
List Insert.... _ Update.... _ Delete.... _ Select.... _ ->
Mixed Previous.. _ Next..... _ Top..... _ Bottom.... _
User Cmd1..... _ Cmd2..... _ Cmd3..... _ Cmd4..... _ Cmd5.....
-----
                                Generation-Options
-----
Screen..... EXAMPLES:CUST
File Type..... INT
Primary File... EXAMPLES:CUST      Records on Screen.. 1
Secondary File..      Records on Screen..
F1-----F2-----F3-----F4-----F5-----F6-----F8-----F10-----F11-----
HELP      EDIT      EXIT      INS      UPD      DEL      FWD      EXHELP      CLEAR
```


Transaction help displays when you move the cursor to the top line of the screen (the line on which the title displays) and press the Help key.

[illegible]

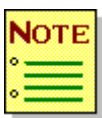
Enter data in the appropriate fields:

Trans-ID

Description	<i>Required.</i> Specifies the ID of the transaction for which you are defining help.
Format	1–8 alphanumeric characters

Language

Description	<i>Required.</i> Specifies the language of the transaction description.
--------------------	---



The default system language is U.S. English (ENU). Contact your local Cincom representative for other languages supported by AD/Advantage.

Default	The language specified in the user's personal ID. If the user does not have a language specified in his/her personal ID, the system defaults to the language set by the system administrator
Format	3 alphanumeric characters

Subsystem

Description	<i>Required.</i> Specifies the subsystem to which the transaction belongs.
Format	3 alphanumeric characters

Help Text

Description	<i>Required.</i> Specifies the text that displays in the user's pop-up window when he/she presses the Help key while the cursor is on the transaction title bar.
Format	1–50 alphanumeric characters on each line, up to 50 lines total

Row

Description	<i>Display.</i> Shows the row number, or line number of the help text.
--------------------	--

TOTAL and SUPRA PDM views #PDM

To define or edit TOTAL file views, use the #PDM transaction. When you enter #PDM, AD/Advantage displays the Total File View Design Facility. This facility provides a menu of options to create, maintain, and view TOTAL file views.

M A N T I S

TOTAL File View Design Facility

```

Create or update views ..... 1
Update view layout ..... 2
Library functions ..... 3
Directory of views ..... 4
Print completed view ..... 5
List allowed TOTAL files ..... 6
Terminate this facility ..... CANCEL

```

: :

For information on using the TOTAL File View Design Facility:

- ◆ **Mainframe users:** Refer to *MANTIS Facilities, OS/390, VSE/ESA*, P39-5001.
- ◆ **UNIX and OpenVMS users:** Refer to the information on “ULTRA file view design” in *MANTIS Facilities, OpenVMS/UNIX*, P39-1300.
- ◆ **PC users:** Refer to *MANTIS for Windows Facilities Reference Manual*, P19-2301.

5

Listing transactions

This chapter outlines how to display and list entities.



When you enter a list transaction listing, only user-defined entities display (not system entities). To list system entities as well, press the First key. When you press the First key, AD/Advantage lists all system entities first (system entities begin with a hash sign by default), and then user-defined entities.

Personal user menus #UMENU

To view a list of the last 14 or 16 transactions you accessed, use the #UMENU transaction shown below.

General considerations

The following general considerations apply to the personal user menus:

- ◆ If your system is set to pull-down menus, your last 14 transactions display in each menu in the system (in which case, you do not need to use #UMENU).
- ◆ If your system is set to list menus, your last 16 transactions display in #UMENU.
- ◆ Your system administrator must activate personal user menus so that you can use the #UMENU transaction.

If your system displays pull-down menus

You can view a personal user menu, showing the last 14 transactions you used, on any menu or by accessing the #UMENU transaction. Here is an example of a personal user menu accessed by entering #UMENU at the command line:

```
====>                                User menu (#UMENU)                                YYYY.MM.DD HH:MM PC-
-----
-----
1 Sign On to AD/Advantage                (#SIGNON)
2 Edit System Parameters                 (#PARM)
3 List Domain Definitions                (#DDEFL)
4 Edit Transaction Authorizations        (#AUTH)
5 Call Users Start Transaction           (#HOME)
6 Edit Prototype Definitions             (#PTYPE)
7 Edit Domain Help Information           (#DHLP)
8 Edit Programs                         (#PRG)
9 List Transaction Authorizations        (#AUTHL)
10 Edit Screens                         (#SCR)
11 Edit Domain Definitions               (#DDEF)
12 Edit Transaction Definitions          (#TRN)
13 Edit Menu Definitions                 (#MENU)
14 List Screens                         (#SCRL)
F1-----F3-----F10-----F12-----CANCEL-----
HELP      EXIT      EXHELP    PROFILE  QUIT
```

Here is an example of a personal user menu displayed on the Main Selection menu (remember that your personal user menu displays on every AD/Advantage menu):

```

====>                                Main Selection (#SYS)                                YYYY.MM.DD HH:MM PC-
-----
#EDIT  #LIST  #UTILITY  #GEN  #OPTIONS  #REPORTS
-----
1  Sign On to AD/Advantage                (#SIGNON)
2  Edit System Parameters                  (#PARM)
3  List Domain Definitions                 (#DDEFL)
4  Edit Transaction Authorizations         (#AUTH)
5  Call Users Start Transaction            (#HOME)
6  Edit Prototype Definitions              (#PTYPE)
7  Edit Domain Help Information            (#DHLP)
8  Edit Programs                          (#PRG)
9  List Transaction Authorizations         (#AUTHL)
10 Edit Screens                           (#SCR)
11 Edit Domain Definitions                 (#DDEF)
12 Edit Transaction Definitions            (#TRN)
13 Edit Menu Definitions                  (#MENU)
14 List Screens                           (#SCRL)
F1-----F3-----F7-----F8-----F10-----F12-----F17-----F18-----CANCEL-
HELP      EXIT      BWD      FWD      EXHELP    PROFILE  PREV      NEXT      QUIT

```

If your system displays list menus

You can view a personal user menu, showing the last 16 transactions you used, by accessing the #UMENU transaction. Here is an example:

```

                                User menu (#UMENU)
====>                                YYYY.MM.DD HH:MM PC-
-----
1  List Domain Definitions          (#DDEFL)
2  Edit Transaction Authorizations  (#AUTH)
3  Sign On to AD/Advantage          (#SIGNON)
4  Edit System Parameters           (#PARM)
5  Call Users Start Transaction     (#HOME)
6  Edit Prototype Definitions       (#PTYPE)
7  Edit Domain Help Information     (#DHLP)
8  Edit Programs                   (#PRG)
9  List Transaction Authorizations  (#AUTHL)
10 Edit Screens                     (#SCR)
11 Edit Domain Definitions          (#DDEF)
12 Edit Transaction Definitions     (#TRN)
13 Edit Menu Definitions            (#MENU)
14 List Screens                     (#SCRL)
15 Edit Personal IDs                (#ID)
16 Edit Synonyms                    (#SYNONYM)

F1-----F3-----F12-----CANCEL-----
HELP      EXIT      PROFILE  QUIT
```


Debug program parameters #DEBUG

To display the system and user parameter areas, use the #DEBUG transaction shown below. Press the Forward key to page from one parameter area to the next. This transaction shows the contents of the system parameter (SYST), alphanumeric parameter (USRT), numeric parameter (USRN), and the text or KANJI parameter (USRK). All parameters except SYST can be changed. (The SYST parameter contains system information contained in the #ID, #PFK, and #PARM transactions.) If you want to change the size of your user parameters, use the #DEF transaction. For more information on #DEF, refer to *MANTIS Administration, OS/390, VSE/ESA*, P39-5005.

```

                                Debug Program Parameters (#DEBUG)
=====
====>                                YYYY.MM.DD HH:MM PC-
-----
Variable..... SYST
-----
      10      20      30      40      50      60      70      8
-----:-----:-----:-----:-----:-----:-----:-----
HELP  EXECUTE EXIT  INSERT UPDATE  DELETE  BACKWARDFORWARD PRINT  EXHLP
PF1---PF2---PF3---PF4---PF5---PF6---PF7---PF8---PF9---PF10---
HELP  EXIT
BRI,CUR      .24 ENUENUENUPC      F3=EXIT F7=BWD F8=FWD      EXHELP
ADMIN  ADMIN  AHLP  PF3  PF8  PF7  PF1  CANCEL  #DEBUG  #MSYS
#DEBUG  #MSYS  #SYS  #MSYS
HELP  EXIT  FWD  EXHELP  PROFILE  LEFT  RIGHT  QUIT
HELP  EDIT  EXIT  INS  UPD  DEL  BWD  FWD  PRINT  EXHELP
PRIN  KILL  PC-

F1-----F3-----F8-----F10-----F12-----F19-----F20-----CANCEL-----
HELP      EXIT      FWD      EXHELP      PROFILE  LEFT      RIGHT      QUIT

```

The following field displays:

Variable

Description *Display.* Specifies the name of the variable displayed for debugging purposes.

Domain definitions #DDEFL

To list AD/Advantage domain definitions, use the #DDEFL transaction shown below:

```
====>                               List Domain Definitions (#DDEFL)                               YYYY.MM.DD HH:MM PC-
-----
S Domain                               Req Fill Low-Range           High-Range
_ CUST_NO                               11111
_ STATE
_ STATECODE
_
_
_
_
_
_
_
_
_
_
F1-----F3-----F8-----F10-----F14-----CANCEL-----
HELP      EXIT      FWD      EXHELP    FIRST      QUIT
I09:EOF reached, paging not possible
```

Enter data in the appropriate fields:

S (Selection)

Description	<i>Optional.</i> Specifies the action you want to perform on a domain definition.
Format	1 alphabetic character
Options	<p>S Display the Edit Domain Definitions screen (#DDEF) with the corresponding domain definition. See “Domain Definitions Screen #DDEF” on page 125 for information on editing domain definitions.</p> <p>D Delete a domain definition.</p>

Domain

Description	<i>Conditional.</i> Lists the domain names in alphabetical order. The first field in the Name column is <i>optional</i> . You can use it to list from a specific domain definition name forward. All remaining fields in the Domain column are <i>display only</i> .
--------------------	--

Format	1–30 alphanumeric characters
---------------	------------------------------

Considerations

- ◆ Domains are defined globally by name. Usually they are fields for which validation checks are required.
- ◆ The domain name should match the field name in the application.
- ◆ To list from a specific domain name forward, type the domain name (or its first few characters) in the first field and press the Forward key. AD/Advantage repositions the list from the new domain name forward.

Req

Description	<i>Display.</i> Specifies whether you are required to make an entry in this field.
Default	(blank)
Options	<p>(blank) Not required.</p> <p>Y Required.</p>

Fill

Description	<i>Display.</i> Specifies whether the field requires a valid value in all positions.
Default	(blank)
Options	(blank) Not required in all positions. Y Required in all positions.

Low-Range

Description	<i>Display.</i> Specifies the minimum value that is accepted in a range.
--------------------	--

High Range

Description	<i>Display.</i> Specifies the maximum value that is accepted in a range.
--------------------	--

Date/Time Changed

Description	<i>Display.</i> Specifies the date and time of the last change to the Domain definition.
--------------------	--

Personal_ID

Description	<i>Display.</i> Specifies the personal ID of the user who made the last change to the Domain definition.
--------------------	--

Terminal

Description	<i>Display.</i> Specifies the Terminal of the user who made the last change to the Domain definition.
--------------------	---

Domain help information #DHLPL

To list domain help information, use the #DHLPL transaction shown below:

```
====>                                List Domain Help Information (#DHLPL)
                                         YYYY.MM.DD HH:MM PC-
-----
S Domain                               Lng Title
_ COMMAND_LINE                        ENU Command Line
_ CUST_NO                             ENU Customer Number
_ SYSCOM                              ENU Valid Commands
_ SYSDATE                             ENU Today's date
_ SYSPFK                              ENU Function Keys
_ SYSTEM                              ENU Terminal
_
_
_
_
_
_
_
_
F1-----F3-----F8-----F10-----F14-----CANCEL-----
HELP      EXIT      FWD      EXHELP    FIRST    QUIT
```

Enter data in the appropriate fields:

S (Selection)

- Description** *Optional.* Specifies the action you want to perform on the domain help.
- Format** 1 alphabetic character
- Options** S Display the Edit Domain Help Information screen (#DHLP) with the corresponding domain help. See “Domain help information #DHLP” on page 136 for information on editing domain help.

 D Delete domain help.

Domain

Description *Conditional.* Lists the names of the domains for which you are listing help. The first field in the Domain column is *optional*. You can use it to list from a specific domain name forward. All remaining fields in the Name column are *display only*.

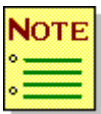
Format 1–30 alphanumeric characters

Considerations

- ◆ Domains are defined globally by name.
- ◆ The domain name should match the field name in the application.
- ◆ To list from a specific domain name forward, type the domain name (or its first few characters) in the first field and press the Forward key. AD/Advantage repositions the list from the new domain name forward.

Language

Description *Display.* Specifies the language used in the domain help.



The default system language is U.S. English (ENU). Contact your local Cincom representative for other languages supported by AD/Advantage.

Title

Description *Display.* Specifies the title of this particular help. The title displays at the top of the pop-up help screen.

To list data views in the CASE Scratchpad, use the #DATA transaction shown below:

```

List Data Views in the Scratchpad (#DATAL)
====>
YY/MM/DD      HH:MM PC-
-----
S Name in EXAMPLES      Description
_ PC-_SCREEN1            POPULATION STATISTICS
_ PC-_VIEW1              POPULATION STATISTICS
_
_
_
_
_
_
_
_
_
_
_
_
_
_
_
_
_
_
F1-----F3-----F8-----F10-----F12-----F14-----CANCEL-----
HELP      EXIT      FWD      EXHELP      PROFILE      FIRST      QUIT

```

Enter data in the appropriate fields:

S (Selection)

- Description** *Optional.* Specifies the action you want to perform on a data view.
- Format** 1 alphabetic character
- Options** C Display the columns in the Data View.
- D Delete a data view.
- E Display the columns in the Data View.
- M Merge a data view with another entity. You will be prompted to enter an entity type and name with which you want to merge the data view as shown in the following menu. After entering an entity type and name, press ENTER.

+-----+
| Merge PC-_VIEW1 with
| Entity Type..... DATAVIEW_____
| Entity Name..... PC-_VIEW1_____
|-----+
+-----+

- S Display the columns in the Data View
- T Transform a data view. You will be prompted to enter an entity type and name to which you want to transform the data view as shown in the following menu. After entering an entity type and name, press ENTER.

+-----+
| Transform PC-_VIEW1 to
| Entity Type..... DATAVIEW_____
| Entity Name..... PC-_VIEW1_____
|-----+
+-----+

Consideration For more information on the Entity Transformer Scratchpad, refer to the information on “CASE Scratchpad” (another name for the Entity Transformer Scratchpad) in *MANTIS Entity Transformers*, P39-0013.

Name in *MANTIS-user-name*

Description *Conditional.* Lists the data view IDs in alphabetical order. The first field in the Name in column is *optional*. You can use it to list from a specific data view forward. All remaining fields in the Name in column are *display only*.

Format 1–30 alphanumeric characters

Considerations

- ◆ To list from a specific data view forward, type the data view ID (or its first few characters) in the first field and press the Forward key. AD/Advantage repositions the list from the new data view ID forward.
- ◆ You can change the MANTIS user name to list from another MANTIS user. However, the line commands cannot be used in another MANTIS user's entities.

Description

Description *Display.* Specifies the data view description.

Text in the scratchpad #TEXTL

To list text in the Entity Transformer Scratchpad for a MANTIS user, use the #TEXTL transaction shown below:

List Text in the Scratchpad (#TEXTL)

====>YY/MM/DDHH:MM PC-00

S Name in MASTERDescription

ADV_CM_SINGLE_MASTERTEMPLATE - SINGLE PROG, INDEX

ADV_DUMMY

ADV_TMP_LISTTEMPLATE - LIST PROG, INDEX

ADV_TMP_LIST_DBMTEMPLATE - LIST PROG, DBM

ADV_TMP_LIST_SUPRATEMPLATE - LIST PROG, SUPRA

ADV_TMP_MIXEDTEMPLATE - MIXED PROG, INDEX

ADV_TMP_SINGLETEMPLATE - SINGLE PROG, INDEX

ADV_TMP_SINGLE_DBMTEMPLATE - SINGLE PROG, DBM

ADV_TMP_SINGLE_SUPRATEMPLATE - SINGLE PROG, SUPRA

ADV_TMP_SINGLE_WINTEMPLATE - SINGLE PROG, INDEX

ADV_TMP_TRN_MGMTTEMPLATE - TRANSACTION MANAGEMENT ONLY

F1-----F3-----F8-----F10-----F14-----CANCEL-----

HELPEXITFWDEXHELPFIRSTQUIT

Enter data in the appropriate fields:

S (Selection)

Description	<i>Optional.</i> Specifies the action you want to perform on the scratchpad text.
Format	1 alphabetic character
Options	<p>D Delete scratchpad text.</p> <p>E Edit the scratchpad text.</p> <p>M Merge scratchpad text with another entity. You will be prompted to enter an entity type and name with which you want to merge the text. After entering an entity type and name, press ENTER.</p> <p>S Edit the scratchpad text.</p> <p>T Transform the scratchpad text. You will be prompted to enter an entity type and name to which you want to transform the text. After entering an entity type and name, press ENTER.</p>

Consideration For more information on the Entity Transformer Scratchpad, refer to the information on “CASE Scratchpad” (another name for the Entity Transformer Scratchpad) in *MANTIS Entity Transformers*, P39-0013

Name in *MANTIS-user-name*

Description	<i>Conditional.</i> Lists the scratchpad text IDs in alphabetical order. The first field in the Name in column is <i>optional</i> . You can use it to list from a specific scratchpad text ID forward. All remaining fields in the Name in column are <i>display only</i> .
Format	1–30 alphanumeric characters
Considerations	<ul style="list-style-type: none"> ◆ To list from a specific scratchpad text ID forward, type the scratchpad text ID (or its first few characters) in the first field and press the Forward key. AD/Advantage repositions the list from the new scratchpad text ID forward. ◆ You can change the MANTIS user name to list from another MANTIS user. However, the line commands cannot be used in another MANTIS user’s entities.

Description

Description	<i>Display.</i> Specifies the scratchpad text descriptions.
--------------------	---

External files #EXTL

To display a list of external files, use the #EXTL transaction shown below:

List External Files (#EXTL)

====>

YYYY.MM.DD HH:MM PC-

S Name in EXAMPLES_____ Description>>>

_ CUST

F1-----F3-----F8-----F10-----F12-----F14-----F19-----F20-----CANCEL-

HELPEXITFWDEXHELPPROFILEFIRSTLEFTRIGHTQUIT

Enter data in the appropriate fields:

S (Selection)

Description *Optional.* Specifies the action you want to perform on the external file.

Format 1 alphabetic character

Options D Delete an external file.

E Edit an external file. Displays the External File View Design Facility screen with the corresponding external file. For more information:

◆ **Mainframe users:** Refer to *MANTIS Facilities, OS/390, VSE/ESA*, P39-5001.

◆ **UNIX and OpenVMS users:** Refer to *MANTIS Facilities, OpenVMS/UNIX*, P39-1300.

◆ **PC users:** Refer to *MANTIS for Windows Facilities Reference Manual*, P19-2301.

F Perform file maintenance on a file view.

M Merge an external file with another entity. You will be prompted to enter an entity type and name with which you want to merge the external file. After entering an entity type and name, press ENTER. For more information on entity transformers, refer to *MANTIS Entity Transformers*, P39-0013.

S Edit an external file. Displays the External File View Design Facility screen with the corresponding external file. For more information:

◆ **Mainframe users:** Refer to *MANTIS Facilities, OS/390, VSE/ESA*, P39-5001.

◆ **UNIX and OpenVMS users:** Refer to *MANTIS Facilities, OpenVMS/UNIX*, P39-1300.

◆ **PC users:** Refer to *MANTIS for Windows Facilities Reference Manual*, P19-2301.

T Transform an external file. You will be prompted to enter an entity type and name to which you want to transform the external file. After entering an entity type and name, press ENTER. For more information on entity transformers, refer to *MANTIS Entity Transformers*, P39-0013.

Name in *MANTIS-user-name*

Description *Conditional.* Lists the external file names in alphabetical order. The first field in the Name in column is *optional*. You can use it to list from a specific external file ID forward. All remaining fields in the Name in column are *display only*.

Format 1–30 alphanumeric characters

Considerations

- ◆ To list from a specific external file ID forward, type the external file ID (or its first few characters) in the first field and press the Forward key. AD/Advantage repositions the list from the new external file ID forward.
- ◆ You can change the MANTIS user name to list from another MANTIS user. However, the line commands cannot be used in another MANTIS user's entities.

Description

Description *Display.* Specifies the external file descriptions.

Date Changed

Description *Display.* Specifies the date the external file changed.

Time Changed

Description *Display.* Specifies the time the external file changed.

Internal files #INTL

To display a list of internal files, use the #INTL transaction shown below:

```

====>                                List Internal Files (#INTL)                                YYYY.MM.DD HH:MM PC-
-----
S Name in EXAMPLES_____ Description                                     >>>
_ ACCESS                      For CINCOM internal use ONLY
_ CASE_DATAFIELDS             CASE DATA VIEW FIELDS
_ CASE_DATAVIEW               CASE DATA VIEW PROFILE ENTITY
_ CASE_ELEMENT                 CASE DATA ELEMENT ENTITY
_ CASE_TEXTHDR                 CASE TEXT ENTITY PROFILE
_ CASE_TEXTLINE                CASE UNFORMATTED TEXT LINE
_ CUST                         CUST
_ FREE_FILES                   For CINCOM internal use ONLY
_ INTERFACES                   For CINCOM internal use ONLY
_ JACKSON                     POPULATION STATISTICS
_ PART                         Part file
_ PRICE_BASE                   LOCAL MARKET PRICES BASE DATA
_ PRICE_PORT                   LOCAL MARKET PORT PRICES
_ PRICE_RATE                   LOCAL MARKET TRANSPORT RATES
_ PRICE_TOWN                   LOCAL MARKET PRICES - TOWN INFORMATION
_ PROGRAMS                     For CINCOM internal use ONLY
F1-----F3-----F8-----F10-----F12-----F14-----F19-----F20-----CANCEL-
HELP      EXIT      FWD      EXHELP    PROFILE  FIRST    LEFT    RIGHT    QUIT

```

Enter data in the appropriate fields:

S (Selection)

Description	<i>Optional.</i> Specifies the action you want to perform on the internal file.
Format	1 alphabetic character
Options	<p>D Delete an internal file.</p> <p>E Edit an internal file. Displays the File Design Facility screen with the corresponding internal file. For more information:</p> <ul style="list-style-type: none">◆ Mainframe users: Refer to <i>MANTIS Facilities, OS/390, VSE/ESA</i>, P39-5001.◆ UNIX and OpenVMS users: Refer to <i>MANTIS Facilities, OpenVMS/UNIX</i>, P39-1300.◆ PC users: Refer to <i>MANTIS for Windows Facilities Reference Manual</i>, P19-2301. <p>F Perform file maintenance on a view.</p> <p>M Merge an internal file with another entity. You will be prompted to enter an entity type and name with which you want to merge the internal file. After entering an entity type and name, press ENTER. For more information on entity transformers, refer to <i>MANTIS Entity Transformers</i>, P39-0013.</p> <p>S Edit an internal file. Displays the File Design Facility screen with the corresponding internal file. For more information:</p> <ul style="list-style-type: none">◆ Mainframe users: Refer to <i>MANTIS Facilities, OS/390, VSE/ESA</i>, P39-5001.◆ UNIX and OpenVMS users: Refer to <i>MANTIS Facilities, OpenVMS/UNIX</i>, P39-1300.◆ PC users: Refer to <i>MANTIS for Windows Facilities Reference Manual</i>, P19-2301. <p>T Transform an internal file. You will be prompted to enter an entity type and name to which you want to transform the internal file. After entering an entity type and name, press ENTER. For more information on entity transformers, refer to <i>MANTIS Entity Transformers</i>, P39-0013.</p>

Name in *MANTIS-user-name*

Description *Conditional.* Lists the internal file names in alphabetical order. The first field in the Name in column is *optional*. You can use it to list from a specific internal file ID forward. All remaining fields in the Name in column are *display only*.

Format 1–30 alphanumeric characters

Considerations

- ◆ To list from a specific internal file ID forward, type the internal file ID (or its first few characters) in the first field and press the Forward key. AD/Advantage repositions the list from the new internal file ID forward.
- ◆ You can change the MANTIS user name to list from another MANTIS user. However, the line commands cannot be used in another MANTIS user's entities.

Description

Description *Display.* Specifies the internal file descriptions.

Date Changed

Description *Display.* Specifies the date the internal file changed.

Time Changed

Description *Display.* Specifies the time the internal file changed.

Interfaces #INFL

To generate a list of the interfaces defined within a MANTIS user, use the #INFL transaction shown below:

```
====>                                YYYY.MM.DD HH:MM PC-
-----
S Name in EXAMPLES_____ Description                                >>>
_ EXAMPLE1                  interface for EXAMPLE1 program
_ EXAMPLE2A                 interface for EXAMPLE2 program
_ EXAMPLE2B                 interface for EXAMPLE2 program
_ EXAMPLE2C                 interface for EXAMPLE2 program
_ EXAMPLE3_R                interface for ITF_EXAMPLE3_R program
_ EXAMPLE3_S                interface for ITF_EXAMPLE3_S program
_ EXAMPLE4_R                interface for ITF_EXAMPLE4 program
_ EXAMPLE4_S                interface for ITF_EXAMPLE4 program
_ FILE_MANAGER              interface for ITF_FILE_MANAGER program
_ MANTIS_FULL               interface for ITF_MANTIS_FULL program
_ MANTIS_INPUT              interface for ITF_MANTIS_OI program
_ MANTIS_OUTPUT             interface for ITF_MANTIS_OI program
_ SELECT_HIGH               interface for ITF_SELECT_HIGH program
_ SELECT_LOW                interface for ITF_SELECT_LOW program
_ STRING_FULL               interface for ITF_STRING_FULL program
_ STRING_INPUT              interface for ITF_STRING_OI program
F1-----F3-----F8-----F10-----F12-----F14-----F19-----F20-----CANCEL-
HELP      EXIT      FWD      EXHELP    PROFILE  FIRST    LEFT     RIGHT    QUIT
```

Enter data in the appropriate fields:

S (Selection)

Description	<i>Optional.</i> Specifies the action you want to perform on the interface.
Format	1 alphabetic character
Options	<p>D Delete an interface.</p> <p>E Edit an interface. Displays the Interface Design Facility screen with the corresponding interface. For more information:</p> <ul style="list-style-type: none"> ◆ Mainframe users: Refer to <i>MANTIS Facilities, OS/390, VSE/ESA</i>, P39-5001. ◆ UNIX and OpenVMS users: Refer to <i>MANTIS Facilities, OpenVMS/UNIX</i>, P39-1300. ◆ PC users: Refer to <i>MANTIS for Windows Facilities Reference Manual</i>, P19-2301. <p>M Merge an interface with another entity. You will be prompted to enter an entity type and name with which you want to merge the interface. After entering an entity type and name, press ENTER. For more information on entity transformers, refer to <i>MANTIS Entity Transformers</i>, P39-0013.</p> <p>S Edit an interface. Displays the Interface Design Facility screen with the corresponding interface. For more information:</p> <ul style="list-style-type: none"> ◆ Mainframe users: Refer to <i>MANTIS Facilities, OS/390, VSE/ESA</i>, P39-5001. ◆ UNIX and OpenVMS users: Refer to <i>MANTIS Facilities, OpenVMS/UNIX</i>, P39-1300. ◆ PC users: Refer to <i>MANTIS for Windows Facilities Reference Manual</i>, P19-2301. <p>T Transform an interface. You will be prompted to enter an entity type and name to which you want to transform the interface. After entering an entity type and name, press ENTER. For more information on entity transformers, refer to <i>MANTIS Entity Transformers</i>, P39-0013.</p>

Name in *MANTIS-user-name*

Description *Conditional.* Lists the interface names in alphabetical order. The first field in the Name in column is *optional*. You can use it to list from a specific interface ID forward. All remaining fields in the Name in column are *display only*.

Format 1–30 alphanumeric characters

Considerations

- ◆ To list from a specific interface ID forward, type the interface ID (or its first few characters) in the first field and press the Forward key. AD/Advantage repositions the list from the new interface ID forward.
- ◆ You can change the MANTIS user name to list from another MANTIS user. However, the line commands cannot be used in another MANTIS user's entities.

Description

Description *Display.* Specifies the interface descriptions.

Date Changed

Description *Display.* Specifies the date the interface changed.

Time Changed

Description *Display.* Specifies the time the interface changed.

MANTIS directory #DIR

To view or print an alphabetical listing of all current programs, screens, files, prompters, interfaces and/or views in your library, use the #DIR transaction. The MANTIS Directory Facility screen displays:

When you enter the Directory Facility, you are automatically in List mode. To change to Print mode, press PF24 or type 24 and press ENTER.

List	M A N T I S		YY/MM/DD
			HH:MM:SS
Directory Facility			
Programs	1	DL/I Call Profiles	13
Screens	2	DL/I Segment Layouts	14
MANTIS File Profiles ..	3		
Prompters	4		
Interfaces	5		
TOTAL File Views	6		
External File Views ...	7	Toggle Print On	24
Logical Views	8		
Scenarios	9	Terminate This Facility ..	Cancel
: :			

For information on how to use the Directory Facility:

- ◆ **Mainframe users:** Refer to *MANTIS Facilities, OS/390, VSE/ESA*, P39-5001.
- ◆ **UNIX and OpenVMS users:** Refer to *MANTIS Facilities, OpenVMS/UNIX*, P39-1300.
- ◆ **PC users:** Refer to *MANTIS for Windows Facilities Reference Manual*, P19-2301.

Menu definitions #MENUL

To display a list AD/Advantage menus, use the #MENUL transaction shown below:

```

List Menu Definitions (#MENUL)
====>
                                YYYY.MM.DD HH:MM PC-
-----
S Menu-ID  Trans-IDs
- #ADMIN   #PARM   #DEF    #AUTH   #ID     #IDL    #GROUP  #MSG    #PFK
- #EDIT    #PRG    #SCR    #INT    #EXT    #INF    #PRO    #TOT    #DLI
- #GEN     #CINT   #IINT   #EINT   #GENIND #GENSQL #GENDEF  #TEXTL  #SUB
- #LIST    #PRGL   #SCRL   #INTL   #EXTL   #INFL   #DATA   #TEXTL  #SUB
- #MSYS    #ADMIN  #EDIT   #LIST   #UTILITY #GEN    #OPTIONS #REPORTS
- #OPTIONS #RUN    #DPRO   #MSTART #ET     #DIR    -        #DEBUG  #SIG
- #PRINT   #TRNP   #PFKP   #HLPP   #MENUP  #MSGP   #GROUPP #IDP    #QPL
- #REPORTS #QTABLE  #QDOML  #QFKL   #QINDEXL #QUSERL #QSYN   #QVER   #QPL
- #SYS     #EDIT   #LIST   #UTILITY #GEN    #OPTIONS #REPORTS
- #UTILITY #XFR    #MIG    #UEF    #REL    #ETI   _
-
-
-
-
F1-----F3-----F8-----F9-----F10-----F14-----CANCEL-----
HELP      EXIT      FWD      PRINT     EXHELP    FIRST     QUIT
```

Enter data in the appropriate fields:

S (Selection)

Description	<i>Optional.</i> Specifies the action you want to perform on a menu definition.
Format	1 alphabetic character
Options	<p>S Display the Edit Menu Definitions screen (#MENU) with the corresponding menu definition. See “Menu definitions #MENU” on page 142 for information on editing menu definitions.</p> <p>D Delete a menu definition.</p>

Menu-ID

Description	<i>Conditional.</i> Specifies the menu’s transaction identifier. When a user executes this transaction, the menu displays. The first field in the Menu-ID column is <i>optional</i> . You can use it to list from a specific menu forward. All remaining fields in the Menu-ID column are <i>display only</i> .
Format	1–8 alphanumeric characters
Consideration	To list from a specific menu forward, type the transaction identifier (or its first few characters) in the first field and press the Forward key. AD/Advantage repositions the menu’s list from the new menu forward.

Trans-IDs

Description	<i>Display.</i> Specifies the transactions (listed horizontally) included on the specified menu.
--------------------	--

Date/Time Changed

Description	<i>Display.</i> Specifies the date and time of the last change to the Domain definition.
--------------------	--

Personal_ID

Description	<i>Display.</i> Specifies the Personal_ID of the user who made the last change to the Domain definition.
--------------------	--

Terminal

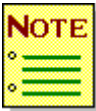
Description	<i>Display.</i> Specifies the Terminal of the user who made the last change to the Domain definition.
--------------------	---

Personal IDs

AD/Advantage users are given personal IDs for access to the system. They may also be assigned to groups so privileges can be broadly assigned rather than individually. The following sections outline how to display a list of personal IDs within groups (#UGROUP) and of individual personal IDs (#IDL).

Personal IDs contained in a group #UGROUP

To display a list of personal IDs contained within a group, use the #UGROUP transaction shown below:



The system administrator assigns individual personal IDs to have access to one or more groups.

```

List Person-IDs contained in a Group (#UGROUP)
====>                                     YYYY.MM.DD HH:MM PC-00
-----
Group-ID..... DEVELOP_ Application Development
Contained Users
DEVELOP

F1-----F2-----F3-----F8-----F10-----F11-----F14-----CANCEL-----
HELP      EDIT      EXIT      FWD      EXHELP    CLEAR    FIRST    QUIT
```


The following fields display:

Group-ID

Description *Optional.* Specifies the group ID.

Contained Users

Description *Display.* Specifies the personal IDs contained in the group shown in the Group ID field.

Personal ID definitions #IDL

To display a list of personal IDs, use the #IDL transaction shown below:

```

====>                                List Personal IDs (#IDL)                                YYYY.MM.DD HH:MM PC-
-----
S Personal-ID      Name                      Lng Start-ID Mantis-User
_  ADMIN           USER, ADMIN              ENU #MSYS    EXAMPLES
_  DEVELOP         USER, DEVELOPER           ENU #SYS     EXAMPLES
_
_
_
_
_
_
_
_
_
_
_
F1-----F3-----F8-----F9-----F10-----F14-----CANCEL-----
HELP      EXIT      FWD      PRINT     EXHELP    FIRST     QUIT

```

Enter data in the appropriate fields:

S (Selection)

Description	<i>Optional.</i> Specifies the action you want to perform on the personal ID.
Format	1 alphabetic character
Options	<p>S Display the Edit Personal IDs transaction (#ID) with the corresponding personal ID. For information on editing personal IDs, refer to <i>MANTIS Administration, OS/390, VSE/ESA</i>, P39-5005.</p> <p>D Delete the personal ID.</p> <p>R Reset a single user sign-on record for a personal ID. Use this if a personal ID cannot sign on and gets the message "User Already Signed On". Resetting the ADMIN Personal-ID resets all personal IDs.</p>

Personal-ID

Description	<i>Conditional.</i> Lists the personal IDs in alphabetical order. The first field in the Personal-ID column is <i>optional</i> . You can use it to list from a specific personal ID forward. All remaining fields in the Personal-ID column are <i>display only</i> .
Format	1–8 alphanumeric characters
Consideration	To list from a specific personal ID forward, type the personal ID (or its first few characters) in the first field and press the Forward key. AD/Advantage repositions the list from the new personal ID forward.

Name

Description *Display.* Specifies the first and last name of the user.

Lng

Description *Display.* Specifies the language the user runs on the system.



The default system language is U.S. English (ENU). Contact your local Cincom representative for other languages supported by AD/Advantage.

Start-ID

Description *Display.* Specifies the transaction to automatically initiate after the user signs on to the system.

Mantis-User

Description *Display.* Specifies a user name for accessing MANTIS.

Programs #PRGL

To list programs, use the #PRGL transaction shown below:

```
====>                                List Programs (#PRGL)                                YYYY.MM.DD HH:MM PC-00
-----
S Name in EXAMPLES_____      Description                                     >>>
_ APPLICATIONS                  SELECT APPLICATION
_ BUZZ_PHRASES                  GENERATE EXPRESSIONS FOR REPORT BUZZ_PHRASES
_ COMMON_DIVISOR                ALGORITHM TO DETERMINE A COMMON DIVISOR
_ COSTS                          CANE GROWING REQUIREMENTS
_ DBM_DECLARE
_ DBM_DESCRIBE
_ DBM_EXECUTE
_ DBM_FETCH
_ DBM_LIST_TABLES
_ DBM_OPEN
_ DBM_PREPARE
_ DBM_QUERY
_ DBM_SHOW_TABLE
_ DBM_WHENEVER
_ D_BROWSE
_ D_COM1
F1-----F3-----F8-----F10-----F12-----F14-----F19-----F20-----CANCEL-
HELP      EXIT      FWD      EXHELP      PROFILE      FIRST      LEFT      RIGHT      QUIT
```

Enter data in the appropriate fields:

S (Selection)

Description *Optional.* Specifies the action you want to perform on the program.

Format 1 alphabetic character

Options

- B Bind a program.
- C Compose a program.
- D Delete a program.
- E Edit a program.
- L List a Bill of Components for a program.
- M Merge a program with another entity.
- R Run a program.
- S Edit a program.
- T Transform a program.
- U Unbind a program.
- Z Decompose a program.

Consideration For more information on these options:

- ◆ **Mainframe users:** Refer to *MANTIS Program Design and Editing, OS/390, VSE/ESA*, P39-5013.
- ◆ **UNIX and OpenVMS users:** Refer to *MANTIS Facilities, OpenVMS/UNIX*, P39-1300.
- ◆ **PC users:** Refer to *MANTIS for Windows Facilities Reference Manual*, P19-2301.

Name in *MANTIS*-user-name

Description *Conditional.* Lists the program names in alphabetical order. The first field in the Name column is *optional*. You can use it to list from a specific program name forward. All remaining fields in the Name column are *display only*.

Format 1–32 alphanumeric characters

Considerations

- ◆ To list from a specific program name forward, type the program name (or its first few characters) in the first field and press the Forward key. AD/Advantage repositions the list from the new program name forward.
- ◆ You can change the MANTIS user name to list from another MANTIS user. However, the line commands cannot be used in another MANTIS user's entities.

Description

Description *Display.* Specifies the program description.

Password

Description *Display.* Specifies the program's password.

Date/Time changed

Description *Display.* Specifies the date and time the program changed.

Size

Description *Display.* Specifies the program's size in bytes.

Release levels

You can query AD/Advantage and SUPRA for their version numbers by using #REL and #QVER, respectively. These transactions are outlined in “AD/Advantage components #REL” starting on page 215 and “SUPRA #QVER” starting on page 217.



Cincom may ask you about the internal version data for AD/Advantage components and the SUPRA database when you call for support.

AD/Advantage components #REL

To display the current version of AD/Advantage and its components, use the #REL transaction shown below:

Show Release Details (#REL)			YYYY.MM.DD HH:MM PC-00

AD/Advantage Component	Service-Level	Release-Date	
AD/Advantage Facilities	X.X(0X)	DD-MMM-YYYY	
CASE Integration Facility	X.X(0X)	DD-MMM-YYYY	
Entity Transformers	X.XX	DD-MMM-YYYY	
Mantis	XXXX		
AD/Advantage Menu System	X.X(0X)	DD-MMM-YYYY	
F1_____	F3_____	F10_____	F12_____ CANCEL_____
Help	Exit	Exhelp	Profile Quit

The following fields display:

AD/Advantage Component

Description	<i>Display.</i> Specifies the component name.
--------------------	---

Service-Level

Description	<i>Display.</i> Specifies the internal service level of the AD/Advantage component.
--------------------	---

Release-Date

Description	<i>Display.</i> Specifies the AD/Advantage component's release date.
--------------------	--

SUPRA #QVER

To display the internal version number of the SUPRA database, use the #QVER transaction shown below:

```
====>                                Display Supra Version (#QVER)                                YYYY.MM.DD HH:MM PC-
-----
Kernel Version....  SUPRA Version  X.X.XX    Date  YYYY-MM-DD
RTE Version.....   OS2 Run-time  Version X.XA te

F1-----F3-----F10-----CANCEL-----
HELP      EXIT      EXHELP    QUIT
```

The following fields display:

Kernel Version

Description	<i>Display.</i> Specifies the internal version number of the SUPRA Kernel.
--------------------	--

RTE Version

Description	<i>Display.</i> Specifies the internal version number of the SUPRA Run Time Environment.
--------------------	--

Screens #SCRL

To list the screens accessible through the MANTIS Screen Design Facility (#SCR), use the #SCRL transaction shown below:

```

                                List Screens (#SCRL)
=====
===>                                YYYY.MM.DD HH:MM PC-00
-----
S Name in EXAMPLES_____ Description                                >>>
_ ADJUST_INTEREST          Adjust Interest Rates
_ ADJUST_LUMPS             Enter Lump Sum Repayments
_ ADJUST_REPS             Adjust Repayment Amounts
_ APPLICATIONS            APPLICATION SELECTION
_ BALANCES                Table of Monthly Reducing Mortgage Balance
_ COST_ALLOW              ALLOWANCES UPDATE FOR GROWING COSTS
_ COST_BASIC              BASIC COSTS UPDATE FOR GROWING COSTS
_ COST_CALC               CURRENT COSTS UPDATE FOR GROWING COSTS
_ COST_DATA               CURRENT DATA UPDATE FOR GROWING COSTS
_ COST_INDEX              INDEXES UPDATE FOR GROWING COSTS
_ COST_SELECT             SELECT FUNCTION REQUIRED IN GROWING COSTS
_ COST_STORAGE            LIST OF STORED COSTS FOR GROWING REQUIREMENTS
_ D_BROWSE_MAP            THE REMOTE INTERFACE DEMO PROGRAM MAIN SCREEN
_ D_ENTRY_MAP             THE REMOTE INTERFACE DEMO - DATA ENTRY FORM
_ D_MENU_MAP              THE REMOTE INTERFACE DEMO PROGRAM MAIN SCREEN
_ GAMES                   GAME SELECTION
F1-----F3-----F8-----F10-----F14-----CANCEL-----
HELP      EXIT      FORWARD EXHLP      FIRST      CANCEL
```

Enter data in the appropriate fields:

S (Selection)

Description *Optional.* Specifies the action you want to perform on the screen.

Format 1 alphabetic character

Options C View the elements of a screen.

 D Delete a screen.

 E Display the MANTIS Screen Design Facility Screen with the
 corresponding screen.

 G Generate screen defaults from Dictionary.

 M Merge a screen with another entity.

 S Display the MANTIS Screen Design Facility Screen with the
 corresponding screen.

 T Transform a screen.

 V Converse (view) a screen.

 X Translate a screen (for Cincom internal use only).

Consideration For more information on these options:

- ◆ **Mainframe users:** Refer to *MANTIS Facilities, OS/390, VSE/ESA*, P39-5001.
- ◆ **UNIX and OpenVMS users:** Refer to *MANTIS Facilities, OpenVMS/UNIX*, P39-1300.
- ◆ **PC users:** Refer to *MANTIS for Windows Facilities Reference Manual*, P19-2301.

Name in *MANTIS*-user-name

Description *Conditional.* Lists the screen names in alphabetical order. The first field in the Name in column is *optional*. You can use it to list from a specific screen name forward. All remaining fields in the Name in column are *display only*.

Format 1–32 alphanumeric characters

Considerations

- ◆ To list from a specific program name forward, type the screen name (or its first few characters) in the first field and press the Forward key. AD/Advantage repositions the list from the new screen name forward.
- ◆ You can change the MANTIS user name to list from another MANTIS user. However, the line commands cannot be used in another MANTIS user's entities.

Description

Description *Display.* Specifies the screen's description.

Date Changed

Description *Display.* Specifies the date the screen changed.

Time Changed

Description *Display.* Specifies the time the screen changed.

The following seven sections outline the display and list options for querying the AD/Advantage database definitions.

Database statistics #QDB, #QSTGRP, and #QVOL

Database definitions #QDB

To list each database defined in AD/Advantage, use the #QDB transaction shown below:

The following fields display:

Database Name Creator

Description	<i>Display.</i> Specifies the authorization ID of the owner of the database.
--------------------	--

Storage Group

Description	<i>Display.</i> Specifies the name of the default storage group of the database; blank for system database.
--------------------	---

Buffer Pool

Description	<i>Display.</i> Specifies the name of the default buffer pool of the database; blank for a system database.
--------------------	---

DB ID

Description	<i>Display.</i> Specifies the internal identifier of the database.
--------------------	--

Creator

Description	<i>Display.</i> Specifies the authorization ID of the user who created the database.
--------------------	--

Storage group definitions #QSTGRP

To list the storage groups defined in AD/Advantage, use the #QSTGRP transaction shown below:

Name	Creator	VCatname	VPassword	Space	Space-UPD-Date	Created by
STGRP01	SYSOP01	CAT01	STEWART	300000	94100	SYSOP01
STGRP02	SYSOP01	CAT11	BROWN	20000	94045	SYSOP01
STGRP03	SYSOP01	CAT15	TURNER	100000	94070	SYSOP01
STGRP04	SYSOP01	CAT20	RUBBA	800000	94009	SYSOP01

The following fields display:

Name

Description	<i>Display.</i> Specifies the name of the storage group, which is storage space allocated as a separate entity by the database.
--------------------	---

Creator

Description	<i>Display.</i> Specifies the authorization ID of the owner of the storage group.
--------------------	---

VCatname

Description	<i>Display.</i> Specifies the name of the integrated catalog facility catalog.
--------------------	--

VPassword

Description	<i>Display.</i> Specifies the password for the integrated catalog facility catalog.
--------------------	---

Space

Description	<i>Display.</i> Specifies the number of kilobytes of DASD storage allocated to the storage group as determined by the last execution of the STOSPACE utility.
--------------------	---

Space-UPD-Date

Description	<i>Display.</i> Specifies the date when the SPACE column was last updated, in the form YYDDD.
--------------------	---

Created by

Description	<i>Display.</i> Specifies the primary authorization ID of the user who created the storage group.
--------------------	---

Volume definitions for each storage group #QVOL

To list the volume definitions for storage groups defined in AD/Advantage, use the #QVOL transaction shown below:

Volume-ID	Creator	Storage Group
RES001	HAL	STGRP01
RES002	HAL	STGRP02
RES003	MELMAC	STGRP03

The following fields display:

Volume-ID

Description *Display.* Specifies the serial number of the volume.

Creator

Description *Display.* Specifies the authorization ID of the owner of the storage group.

Storage Group

Description *Display.* Specifies the name of the storage group.

DB2 plans #QPLAN and #QPLAND

You can access plan dependencies and plan definitions from the DB2 database using the #QPLAND and #QPLAN transactions respectively.

Plan definitions #QPLAN

To list plans in the DB2 database, use the #QPLAN transaction shown below.



Some SQL databases do not have plan support. These databases will not list any plans. Currently, this function is only available for DB2 and DB2/2.

```
====>                                DB2 Plans (#QPLAN)                                YYYY.MM.DD HH:MM PC-
-----
S Name      Creator  Iso Valid
_ M2_DMI     CINCOM    C    Y
_ SQLAB1A0   NULLID    C    Y
_ SQLAC1A0   NULLID    C    Y
_ SQLAR1A0   NULLID    R    Y
_ SQLAU1A0   NULLID    U    Y
_ QLSAMP2    NULLID    C    Y
_ SQLU11A0   NULLID    R    Y
_ SQLU21A0   NULLID    R    Y
_ SQLU31A0   NULLID    R    Y
_ SQLU41A0   NULLID    R    Y
_ SQLU51A0   NULLID    R    Y
_ SQLU61A0   NULLID    R    Y
_ SQLUA1A0   NULLID    R    Y
_ SQLUB1A0   NULLID    R    Y
S SQLUC1A0   NULLID    R    Y
_ SQLUD1A0   NULLID    R    Y
F1-----F3-----F8-----F10-----F14-----CANCEL-----
HELP      EXIT      FWD      EXHELP    FIRST    QUIT
```

Enter data in the appropriate fields:

S (Selection)

Description	<i>Optional.</i> Specifies the action you want to perform on a plan.
Format	1 alphabetic character
Option	S Display the Plan Dependencies screen (#QPLAND) with the corresponding plan.

Name

Description	<i>Conditional.</i> Lists the plan names in alphabetical order. The first field in the Name column is <i>optional</i> . You can use it to list from a specific plan name forward. All remaining fields in the Name column are <i>display only</i> .
Format	1–18 alphanumeric characters
Consideration	To list from a specific plan name forward, type the plan name (or its first few characters) in the first field and press the Forward key. AD/Advantage repositions the list from the new plan name forward.

Creator

Description	<i>Display.</i> Specifies the creator of the plan.
--------------------	--

Iso

Description	<i>Display.</i> Specifies the isolation level for the plan.
Options	R Repeatable read. S Cursor stability.

Valid

Description	<i>Display.</i> Specifies whether the plan is valid (whether it can be run without rebinding).
Options	Y Valid. N Not valid.

Plan dependencies #QPLAND

To list the dependencies for a plan, use the #QPLAND transaction shown below:

```

Plan Dependencies (#QPLAND)
====>
YYYY.MM.DD HH:MM PC-
-----
Name      Creator  Object Type
SYSINDEXES  SYSIBM   TABLE
SYSTABLES  SYSIBM   TABLE
SYSVIEWDEP  SYSIBM   TABLE

F1-----F3-----F8-----F10-----F14-----CANCEL-----
HELP      EXIT      FWD      EXHELP   FIRST    QUIT

```

Enter data in the appropriate fields:

Name

Description *Conditional.* Lists the plan dependency names in alphabetical order. The first field in the Name column is *optional*. You can use it to list from a specific plan dependency forward. All remaining fields in the Name column are *display only*.

Format 1–18 alphanumeric characters

Consideration To list from a specific plan dependency name forward, type the plan dependency name (or its first few characters) in the first field and press the Forward key. AD/Advantage repositions the list from the new plan dependency name forward.

Creator

Description *Display.* Specifies the creator of the object.

Object Type

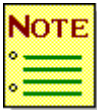
Description *Display.* Specifies the type of object (SQL index, table or view) upon which the plan is dependent.

Domains #QDOML, #QDOMREF, and #QDOM

This section shows how to list the following SQL domain information: database domain definitions (#QDOML), domain references (#QDOMREF), and domain values (#QDOM).

Domain definitions in the SQL database #QDOML

To list the domains defined in the SQL database, use the #QDOML transaction shown below:



#QDOML will not list any domains for databases that do not have domain support.

```

=====
Domain List (#QDOML)
YYYY.MM.DD HH:MM PC-
-----
S Domain Name      Mod Type      Len  Dec Defval
S CITY             OPT CHAR ASCII      6    EXIST
_ COLOUR           OPT CHAR ASCII      5    EXIST
_ DATE_1991        MAN DATE      8    EXIST
_ PNAME            OPT CHAR ASCII     10
_ STATUS           OPT CHAR ASCII      2    EXIST
_
_
_
_
_
_
_
_
_
F1-----F3-----F8-----F10-----F14-----CANCEL-----
HELP      EXIT      FWD      EXHELP    FIRST    QUIT

```

Enter data in the appropriate fields:

S (Selection)

Description	<i>Optional.</i> Specifies the action you want to perform on a domain.
Format	1 alphabetic character
Options	<p>S Display the Domain Report screen (#QDOM) with the corresponding domain. For more information on #QDOM, see the discussion in the following section.</p> <p>R Display the Domain References screen (#QDOMREF) with the corresponding domain. for more information on #QDOMREF, see the discussion in the following section.</p>

Domain Name

Description	<i>Conditional.</i> Lists the names of the domains in alphabetical order. The first field in the Name column is <i>optional</i> . You can use it to list from a specific domain name forward. All remaining fields in the Name column are <i>display only</i> .
Format	1–18 alphanumeric characters
Consideration	To list from a specific domain name forward, type the domain name (or its first few characters) in the first field and press the Forward key. AD/Advantage repositions the list from the new domain name forward.

Mod

Description	<i>Display.</i> Specifies the mode of the Column.
Options	<p>KEY Key column.</p> <p>MAN Mandatory column (a column defined as NOT NULL or with a DEFAULT).</p> <p>OPT Optional column (no DEFAULT).</p>

Type

Description	<i>Display.</i> Specifies the SQL Data type of the column.
--------------------	--

Len

Description	<i>Display.</i> Specifies the maximum length of the SQL column.
--------------------	---

Dec

Description	<i>Display.</i> Specifies the maximum number of decimal places the column can contain.
--------------------	--

Defval

Description	<i>Display.</i> Specifies whether a range or default is defined for the domain. If so, this column contains EXISTS; if not, this column is blank.
--------------------	---

To display the tables and columns that

To display the tables and columns that reference a particular domain, use the #QDOMREF transaction shown below. Enter the transaction in the format #QDOMREF.*domain name* to list the tables and columns for the specific domain.

```

=====
Domain References (#QDOMREF)
=====
====>
                                YYYY.MM.DD HH:MM PC-
-----
Creator      Table Name        Column Name      Comments
DEMO         SUPPLIER          CITY
DEMO         SUPPLIER1         CITY
DEMO         SUPPLIER4         CITY

F1-----F3-----F5-----F8-----F10-----F13-----F14-----CANCEL-----
HELP      EXIT      UPD      FWD      EXHELP      GEN      FIRST      QUIT

```

The following fields display:

Creator

Description	<i>Display.</i> Specifies the creator or qualifier of the table.
--------------------	--

Table Name

Description	<i>Display</i> . Specifies the name of the SQL Table.
--------------------	---

Column Name

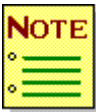
Description	<i>Display.</i> Specifies the name of the column in the SQL Table.
--------------------	--

Comments

Description	<i>Display.</i> Specifies user-provided comments.
--------------------	---

Domain values #QDOM

To display the domain values, use the #QDOM transaction shown below. Enter the transaction in the format #QDOM.*domain name* which will then display the values of the specific domain.



#QDOM will not list any domains for databases that do not have domain support.

```
====>                                Domain Report (#QDOM)                                YYYY.MM.DD HH:MM PC-
-----
Def Domain Values for CITY
=  LONDON
=  PARIS
=  ROME
=  ATHENS
=  OSLO
=  NY
=  LA
=  BOSTON

F1-----F3-----F8-----F10-----F14-----CANCEL-----
HELP      EXIT      FWD      EXHELP    FIRST      QUIT
```

The following fields display:

Def

Description *Display.* Specifies the qualifier to the value for the domain.

Domain Values for *domain-name*:

Description *Display.* Specifies the values for a given domain.

Indexes #QINDEXL, #QINDEX, and #QISTAT

This section outlines how to list the indexes defined within an SQL database (#QINDEXL), how to display information about an SQL index (#QINDEX), and how to display index statistics (#QISTAT).

Index definitions #QINDEXL

To list the indexes defined within the SQL database, use the #QINDEXL transaction shown below:

```
====>                                Index List (#QINDEXL)                                YYYY.MM.DD HH:MM PC-
-----
S Creator  Table Name      Index Name
C DEMO     SUPPLIER        SUPPLIER
_ DEMO     SUPPLIER1
_ DEMO     SUPPLIER4
_
_
_
_
_
_
_
_
_
_
_
_
F1-----F3-----F8-----F10-----F14-----CANCEL-----
HELP      EXIT      FWD      EXHELP    FIRST    QUIT
```

Enter data in the appropriate fields:

S (Selection)

- Description** *Optional.* Specifies the action you want to perform on the index.
- Format** 1 alphabetic character
- Options** S Display the Index Statistics screen (#QISTAT) with the corresponding index. For more information on #QISTAT, see the discussion in the later section, Index Statistics.
- C Retrieve information about the columns within an index.

Creator

- Description** *Display.* Specifies the creator or qualifier of the table.

Table Name

- Description** *Conditional.* Lists the name of the SQL tables in alphabetical order. The first field in the Table Name column is *optional*. You can use it to list from a specific table name forward. All remaining fields in the Table Name column are *display only*.
- Format** 1–18 alphanumeric characters (based on the specific database)
- Consideration** To list from a specific table name forward, type the table name (or its first few characters) in the first field and press the Forward key.
AD/Advantage repositions the list from the new table name forward.

Index Name

- Description** *Display.* Specifies the name of the index.

Index information #QINDEX

To display information about an index in an SQL database, use the #QINDEX shown below:

```

Index Display (#QINDEX)
====>
                                YYYY.MM.DD HH:MM PC-
-----
Index Name      Type      Column Name      Sort Date      Time
SUPPLIER                               ASC  YY/MM/DD    HH:MM:SS

F1-----F3-----F8-----F10-----F14-----CANCEL-----
HELP      EXIT      FWD      EXHELP      FIRST      QUIT

```

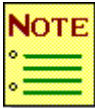
The following fields display:

Index Name	
Description	<i>Display.</i> Specifies the name of the index.
Type	
Description	<i>Display.</i> Specifies whether or not the index is UNIQUE. If the index is not unique, the field is blank.
Column Name	
Description	<i>Display.</i> Specifies the name of the column in the SQL Table.
Sort	
Description	<i>Display.</i> Specifies whether the index value sequence is ascending or descending.
Date	
Description	<i>Display.</i> Specifies the date the index was created or updated.
Time	
Description	<i>Display.</i> Specifies the time the index was created or updated.

Index statistics #QISTAT

To display the statistics for an index, use the #QISTAT transaction shown below. Enter the transaction in the format #QISTAT.*index name* to display the statistics for the specified index.

The left column contains the statistics for the table or index. The right column contains the value for the statistic. References to leaf, index, and root pages have to do with the B* tree structure SUPRA uses to store data.



SUPRA does not use the NO OF PAGES USED to determine the best search strategy. Rather, the DBA updates a special SAVED PAGE COUNT seen by issuing an EXPLAIN SELECT FROM this table.

Index Statistics (#QISTAT)		YYYY.MM.DD HH:MM PC-
====>		

Statistics for Index: SUPPLIER.SUPPLIER		
NO OF PAGES USED		1
NO OF INDEX PAGES		0
NO OF LEAF PAGES		1
NO OF INDEX LEVELS		0
SPACE USED IN ALL PAGES (%)		0
SPACE USED IN ROOT PAGE (%)		0
SPACE USED IN INDEX PAGES (%)		0
MIN SPACE USED IN INDEX PAGES (%)		0
MAX SPACE USED IN INDEX PAGES (%)		0
SPACE USED IN LEAF PAGES (%)		0
MIN SPACE USED IN LEAF PAGES (%)		0
MAX SPACE USED IN LEAF PAGES (%)		0
NO OF INDEX VALUES (INDEX LISTS)		1
AVG NO OF INDEX LISTS PER PAGE		1
MIN NO OF INDEX LISTS PER PAGE		1
MAX NO OF INDEX LISTS PER PAGE		1
F1-----F3-----F5-----F8-----F10-----F14-----	CANCEL-----	
HELP	EXIT	QUIT

The following field displays:

Statistics for Index:*index-name*

Description *Display.* Specifies the name of the index.

Links (or foreign keys) #QFKL, #QFKP, and #QFK

This section outlines how to list the links (or foreign keys) between tables within an SQL database (#QFKL), display information about the primary links within an SQL database (#QFKP), and display information about the secondary links (or foreign keys) within an SQL database (#QFK).

List of foreign keys #QFKL

To list the links (or foreign keys) between tables in an SQL database, use the #QFKL transaction shown below:

```

SQL - Foreign Key List (#QFKL)
====>                                YYYY.MM.DD HH:MM PC-
-----
S   Creator      Table Name          Link Name
-
-
-
-
-
-
-
-
-
-
-
-
-
-
F1-----F3-----F8-----F10-----F12-----F14-----CANCEL-----
HELP           EXIT       FWD        EXHELP    PROFILE   FIRST     QUIT

```

Enter data in the appropriate fields:

S (Selection)

Description	<i>Optional.</i> Specifies the action you want to perform on the link (or foreign key).
Format	1 alphabetic character
Option	S Display the Secondary Links screen (#QFK) with the corresponding link. For more information on #QFK, see the discussion in the later section, Secondary Links (or foreign keys).

Creator

Description	<i>Display.</i> Specifies the creator or qualifier of the table.
--------------------	--

Table Name

Description	<i>Conditional.</i> Lists the names of the SQL tables in alphabetical order. The first field in the Table Name column is <i>optional</i> . You can use it to list from a specific table name forward. All remaining fields in the Table Name column are <i>display only</i> .
Format	1–18 alphanumeric characters (based on the specific database)
Consideration	To list from a specific table name forward, type the table name (or its first few characters) in the first field and press the Forward key. AD/Advantage repositions the list from the new table name forward.

Link Name

Description	<i>Display.</i> Specifies the names of the links.
--------------------	---

Primary links #QFKP

To display information about the primary links within an SQL database, use the #QFKP transaction shown below:

```
SQL - Primary Links (#QFKP)
====>                                     YYYY.MM.DD HH:MM PC-
-----
Primary Table DEMO.EMPLOYEE
Referenced by following Secondary Tables
Primary Column  Link Name      Secondary Table  Secondary Column
EMPLOYEE_NO    PROJECT_TO_EMPLOYE DEMO            PROJECT         PROJECT_MGR

F1-----F3-----F8-----F10-----F12-----F14-----F19-----F20-----CANCEL-
HELP      EXIT      FWD      EXHELP    PROFILE  FIRST    LEFT     RIGHT     QUIT
```

The following fields display:

Primary Table

Description	<i>Display.</i> Specifies the name of the primary table associated with the link.
--------------------	---

Primary Column

Description	<i>Display.</i> Specifies the name of the column (in the primary table) that is the primary key for this link.
--------------------	--

Link Name

Description	<i>Display.</i> Specifies the name of the link.
--------------------	---

Secondary Table

Description	<i>Display.</i> Specifies the name of the secondary table associated with this link.
--------------------	--

Secondary Column

Description	<i>Display.</i> Specifies the name of the column (in the secondary table) that is the secondary key for this link.
--------------------	--

Secondary links (or foreign keys) #QFK

To display information about the secondary links within an SQL database, use the #QFK transaction shown below:

```

=====
Secondary Links (#QFK)
YYYY.MM.DD HH:MM PC-
-----
Secondary Table DEMO.PROJECT
references following Primary Tables
Column Name      Link Name      Primary Table      Primary Column
PROJECT_MGR      PROJECT_TO_EMPLOYE DEMO      EMPLOYEE      EMPLOYEE_NO

F1-----F3-----F8-----F10-----F14-----CANCEL-----
HELP      EXIT      FWD      EXHELP      FIRST      QUIT

```

The following fields display:

Secondary Table

Description	<i>Display.</i> Specifies the name of the secondary table.
--------------------	--

Column Name

Description	<i>Display.</i> Specifies the name of the column (in the secondary table) that is the secondary key for this link.
--------------------	--

Link Name

Description	<i>Display.</i> Specifies the name of the link.
--------------------	---

Priauth

Description	<i>Display.</i> Specifies the creator or qualifier of the primary table associated with this link.
--------------------	--

Primary Table

Description	<i>Display.</i> Specifies the primary table associated with this link.
--------------------	--

Primary Column

Description	<i>Display.</i> Specifies the name of the column (in the primary table) that is the primary key for this link.
--------------------	--

Enter data in the appropriate fields:

Synonym Name

Description *Conditional.* Lists the names of the synonyms in alphabetical order. The first field in the Synonym Name column is *optional*. You can use it to list from a specific synonym name forward. All remaining fields in the Synonym Name column are *display only*.

Format 1–18 alphanumeric characters

Consideration To list from a specific synonym name forward, type the synonym name (or its first few characters) in the first field and press the Forward key. AD/Advantage repositions the list from the new synonym name forward.

Table Name

Description *Display.* Specifies the name of the SQL table.

Creator

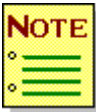
Description *Display.* Specifies the creator or qualifier of the table.

Tables #QCOLUMN, #QSTATS, #QTABLE, and #QVIEW

This section describes how to display the columns in an SQL table (#QCOLUMN), display the statistics for an SQL table (#QSTATS), list the tables and views in an SQL database (#QTABLE), and display the SQL statements used to define a view (#QVIEW).

Column list #QCOLUMN

To display the columns within an SQL table, use the #QCOLUMN transaction shown below. Enter the transaction in the format #QCOLUMN.table-name.user-name. For example, #QCOLUMN.EMPLOYEE.DEMO displays the columns in table EMPLOYEE created by the user DEMO.



You do not need to specify the user-name as a parameter if it is the current SQL database's application user.

Column List (#QCOLUMN)						
====>			YYYY.MM.DD HH:MM PC-			

Column Name	Type	Len	Dec	Mod	Def	Value
EMPLOYEE_NO	CHAR ASC	4		KEY		
LAST_NAME	CHAR ASC	14		OPT		
FIRST_NAME	CHAR ASC	14		OPT		
WORK_DEPT_NO	CHAR ASC	4		MAN		
SALARY	FIXED	10	2	OPT		

The following fields display:

Column Name

Description *Display.* Specifies the name of the column in the SQL table.

Type

Description *Display.* Specifies the SQL data type of the column.

Len

Description *Display.* Specifies the maximum length of the SQL column.

Dec

Description *Display.* Specifies the maximum number of decimal places the column can contain.

Mod

Description *Display.* Specifies the mode of the column.

Options KEY Key column.

MAN Mandatory column (a column defined as NOT NULL or with a DEFAULT).

OPT Optional column (no DEFAULT).

Def

Description *Display.* Specifies the qualifier to the value for the domain.

Value

Description *Display.* Specifies the default value for the column; together with the Def field, this is the default value and range for the column. Def contains a qualifier for the meaning of the value. Value contains the value(s) defining the default or range.

Table statistics #QSTATS

To display the statistics for an SQL table, use the #QSTATS transaction shown below:

Table Statistics (#QSTATS)					YYYY.MM.DD HH:MM PC-
====>					

Statistics for Table: DEMO.EMPLOYEE					
NO OF PAGES USED					1
NO OF INDEX PAGES					0
NO OF LEAF PAGES					1
NO OF INDEX LEVELS					0
SPACE USED IN ALL PAGES (%)					1
SPACE USED IN ROOT PAGE (%)					0
SPACE USED IN INDEX PAGES (%)					0
MIN SPACE USED IN INDEX PAGES (%)					0
MAX SPACE USED IN INDEX PAGES (%)					0
SPACE USED IN LEAF PAGES (%)					1
MIN SPACE USED IN LEAF PAGES (%)					1
MAX SPACE USED IN LEAF PAGES (%)					1
NO OF ROWS					1
AVG NO OF ROWS PER PAGE					1
MIN NO OF ROWS PER PAGE					1
MAX NO OF ROWS PER PAGE					1
F1-----F3-----F8-----F10-----F14-----CANCEL-----					
HELP	EXIT	FWD	EXHELP	FIRST	QUIT

The following field displays:

Statistics for Table: *SQL table name*

Description *Display.* Specifies the name of the SQL Table.

The left column contains the SQL Statistics and the right column displays the value for those statistics. References to leaf, index, and root pages have to do with the B* tree structure SUPRA uses to store data.



SUPRA does not use the NO OF PAGES USED to determine the best search strategy. Rather the DBA updates a special SAVED PAGE COUNT seen by issuing an EXPLAIN SELECT FROM this table.

Table and view definitions #QTABLE

To list the tables and views in an SQL database, use the #QTABLE transaction shown below:

Table and View List (#QTABLE)					
====>			YYYY.MM.DD HH:MM PC-		
S	Table Name	Creator	Type	Last Updated	Created
—	A	DEMO	SYNONYM		
—	ADDRESS	DEMO	TABLE	1992/02/07	1992/02/07
—	ADDR_VIEW	DEMO	VIEW	1992/06/05	1992/06/05
—	BB	DEMO	TABLE	1992/11/30	1992/11/30
—	DEPARTMENT	DEMO	TABLE	1992/09/17	1992/09/17
—	DEPARTMENT1	DEMO	TABLE	1992/04/01	1992/04/01
—	DEPARTMENT4	DEMO	TABLE	1992/04/01	1992/04/01
—	DEPARTMENT_NUMBERS	DEMO	TABLE	1992/09/17	1992/09/17
—	EMPLOYEE	DEMO	TABLE	1992/01/15	1992/01/15
—	EMPLOYEE1	DEMO	TABLE	1992/04/01	1992/04/01
—	EMPLOYEE4	DEMO	TABLE	1992/04/01	1992/04/01
—	MIXED_FILE	DEMO	TABLE	1992/08/05	1992/08/05
—	PART	DEMO	TABLE	1992/01/15	1992/01/15
—	PART1	DEMO	TABLE	1992/04/01	1992/04/01
—	PART4	DEMO	TABLE	1992/04/01	1992/04/01
—	PGN	DEMO	TABLE	1992/07/02	1992/07/02
F1	-----F3	-----F8	-----F10	-----F14	-----CANCEL
HELP	EXIT	FWD	EXHELP	FIRST	QUIT

Enter data in the appropriate fields:

S (Selection)

Description	<i>Optional.</i> Specifies the action you want to perform on the table or view.
Format	1 alphabetic character
Options	<p>A Secondary links (or foreign keys).</p> <p>B Primary links (or foreign keys).</p> <p>C A list of columns in a table.</p> <p>I Information on Indexes.</p> <p>P Plans for a table (DB2 only).</p> <p>S Statistics for a table.</p> <p>V Show the text of view.</p>

Table Name

Description *Display.* Specifies the name of the SQL table or view.

Creator

Description *Display.* Specifies the creator or qualifier of the table.

Type

Description *Display.* Specifies the table.

Options SYNONYM

 TABLE

 VIEW

Last Updated

Description *Display.* Specifies the date of the last UPDATE STATISTICS command on this table. If this date is the same as the creation date of the table, UPDATE STATISTICS has not been executed against this table.

Created

Description *Display.* Specifies the date the table was created.

View definitions #QVIEW

To display the SQL statements used to define a view, use the #QVIEW transaction shown below. The statements that define the view display below the view name.

```
====>                                View Definition (#QVIEW)                                YYYY.MM.DD HH:MM PC-
-----
View Definition for : DEMO.ADDR_VIEW

CREATE VIEW ADDR_VIEW(NAME,TELNO)
AS SELECT ADDRESS.NAME,ADDRESS.TELNO
FROM ADDRESS

F1-----F3-----F8-----F10-----F14-----CANCEL-----
HELP      EXIT      FWD      EXHELP    FIRST     QUIT
```

The following field displays:

View Definition for: *view name*

Description *Display.* Specifies the name of the view.

Users #QUSERL and #QUSER

This section describes how to list the users defined in an SQL database (#QUSERL) and how to display information about an SQL database user (#QUSER).

User definitions #QUSERL

To list the users defined within an SQL database, use the #QUSERL transaction shown below:

```

=====
User List (#QUSERL)                                YYYY.MM.DD HH:MM PC-
-----
S User Name      Group Name    User Mode      Connect Mode
S DEMO           DBA            SINGLE
_ DIALOG         RESOURCE
_ PAUL           DBA
_
_
_
_
_
_
_
_
_
_
F1-----F3-----F8-----F10-----F14-----CANCEL-----
HELP      EXIT      FWD      EXHELP     FIRST     QUIT

```

Enter data in the appropriate fields:

S (Selection)

Description	<i>Optional.</i> Specifies the action you want to perform on a user.
Format	1 alphabetic character
Option	S Displays the User Display screen (#QUSER) with the corresponding user. For more information about #QUSER, see the following discussion, User Information.

User Name

Description *Conditional.* Lists the names of the SQL users in alphabetical order. The first field in the User Name column is *optional*. You can use it to list from a specific user name forward. All remaining fields in the User Name column are *display only*.

Format 1–18 alphanumeric characters

Consideration To list from a specific user name forward, type the user name (or its first few characters) in the first field and press the Forward key. AD/Advantage repositions the list from the new user name forward.

Group Name

Description *Display.* Specifies the group to which this SQL user belongs.

User Mode

Description *Display.* Specifies the SQL user's status:

Options STANDARD

RESOURCE

DBA

Connect Mode

Description *Display.* Specifies whether the SQL user can log on to single or multiple sessions.

Options SINGLE Can log on to only one session at a time.

MULTIPLE Can log on to multiple sessions concurrently.

User information #QUSER

To display data about a user in the SQL database, use the #QUSER transaction shown below:

```

User Display (#QUSER)
====>
-----
User Name..... DEMO
Creation Date... 1992/01/15
Creation Time... 0015:00:30
Perm Limit.....
Temp Limit.....
Max Timeout.....
Cost Warning....
Cost Limit.....

F1-----F3-----F8-----F10-----F14-----CANCEL-----
HELP      EXIT      FWD      EXHELP    FIRST    QUIT
```

The following fields display:

User Name

Description *Display.* Specifies the name of the SQL user defined in the SQL database.

Creation Date

Description *Display.* Specifies the date the user was created in the SQL database.

Creation Time

Description *Display.* Specifies the time the user was created in the SQL database.

Perm Limit

Description *Display.* Specifies the assigned amount (if any) of 4K pages of storage for creating base tables.

Temp Limit

Description	<i>Display.</i> Specifies the assigned amount (if any) of 4K pages of storage for creating result tables with SELECT and SHOW.
--------------------	--

Max Timeout

Description	<i>Display.</i> Specifies the maximum time until timeout.
--------------------	---

Cost Warning

Description	<i>Display.</i> Specifies the assigned limit (if any) for a SELECT cost (the number of I/Os) at which this user receives a warning.
--------------------	---

Cost Limit

Description	<i>Display.</i> Specifies the assigned limit (if any) for a SELECT cost (the number of I/Os) at which this user is not allowed to execute the current SELECT.
--------------------	---

Subsystems #SUBL

To list subsystems within AD/Advantage, use the #SUBL transaction shown below:

```
====>                               List Subsystems (#SUBL)                               YYYY.MM.DD6 HH:MM PC-00
-----
S Subsystem      Subsystem Name
_ ADV            AD/Advantage System Functions
_ DEV            Developer Subsystem
_
_
_
_
_
_
_
_
_
_
F1-----F3-----F8-----F9-----F10-----F12-----F14-----CANCEL-----
HELP      EXIT      FWD      PRINT      EXHELP      PROFILE      FIRST      QUIT
```

Enter data in the appropriate fields:

S (Selection)

- Description** *Optional.* Specifies the action you want to perform on the subsystem.
- Format** 1 alphabetic character
- Options** S Display the Edit Subsystems screen (#SUB) with the corresponding subsystem. For information on editing subsystems, refer to the information on setting up subsystems in *MANTIS Administration, OS/390, VSE/ESA*, P39-5005.
- D Delete the subsystems.

Subsystem

- Description** *Conditional.* Lists the subsystem IDs in alphabetical order. The first field in the Subsystem column is *optional*. You can use it to list from a specific subsystem forward. All remaining fields in the Subsystem column are *display only*.
- Format** 3 alphanumeric characters
- Consideration** To list from a specific subsystem forward, type the subsystem ID (or its first few characters) in the first field and press the Forward key. AD/Advantage repositions the list from the new subsystem forward.

Subsystem Name

- Description** *Display.* Specifies the name of the subsystem.

Transaction authorizations #AUTHL

To list transaction authorization records, use the #AUTHL transaction shown below:

```
====>                               List Transaction Authorizations (#AUTHL)
                                     YYYY.MM.DD HH:MM PC-
-----
S   Trans-ID   Group-ID Personal-ID
-   #ACCL1     ADMIN
-   #ACCL1     DEVELOP
-   #ACCL2     ADMIN
-   #ACCL2     DEVELOP
-   #ACCL3     ADMIN
-   #ACCL3     DEVELOP
-   #ADMIN     ADMIN
-   #AUTH      ADMIN
-   #AUTHL     ADMIN
-   #AUTHL     DEVELOP
-   #CINT      ADMIN
-   #CINT      DEVELOP
-   #CPY-IN    ADMIN
-   #DATAL     ADMIN
-   #DATAL     DEVELOP
-   #DDEF      ADMIN
F1-----F3-----F8-----F10-----F12-----F14-----CANCEL-----
HELP      EXIT      FWD      EXHELP    PROFILE  FIRST      QUIT
```

Enter data in the appropriate fields:

S (Selection)

Description	<i>Optional.</i> Specifies the action you want to perform on the authorization record.
Format	1 alphabetic character
Options	<p>S Display the Edit Authorization Transaction (#AUTH) screen with the corresponding record. For information on editing the record, refer to the information on defining transaction authorization in <i>MANTIS Administration, OS/390, VSE/ESE</i>, P39-5005.</p> <p>D Delete the transaction authorization record.</p>

Trans-ID

Description	<i>Conditional.</i> Displays the authorization records in alphabetical order. The first field in the Trans-ID column is <i>optional</i> . You can use it to list from a specific record forward. All remaining fields in the Trans-ID column are <i>display only</i> .
--------------------	--



All system transactions begin with a hash character (#) by default; your system administrator may have changed this character.

Format	1–8 alphanumeric characters
Consideration	To list from a specific authorization record forward, enter the record's transaction ID (or its first few characters) in the first field and press the Forward key. AD/Advantage repositions the list from the new record forward.

Group-ID

Description	<i>Display.</i> Specifies the group IDs that are authorized to use the transaction.
Consideration	Overtyping the first group in the list and pressing the Forward function key to list all authorizations for a particular group.

Personal-ID

Description *Display.* Specifies the personal IDs that are authorized to use the transaction.

Consideration If both fields, Group-ID and Personal-ID, are empty, it indicates that the transaction can be used systemwide.

Date/Time Changed

Description *Display.* Specifies the date and time of the last change to the Domain definition.

Personal_ID

Description *Display.* Specifies the Personal_ID of the user who made the last change to the Domain definition.

Terminal

Description *Display.* Specifies the Terminal of the user who made the last change to the Domain definition.

Transaction definitions #TRNL

To list the transactions defined within the system, use the #TRNL transaction shown below:

```

====>                                List Transaction Definitions (#TRNL)                                YYY.MM.DD HH:MM PC-00
-----
S Trans-ID Program                                     Type Description
- #ACCL1 VPF:ADV_LST_ACC1                             A Audit Trail Information
- #ACCL2 VPF:ADV_LST_ACC2                             A Most Used AD/A Transactions
- #ACCL3 VPF:ADV_LST_ACC3                             A AD/A Transactions daily base
- #ADMIN VPF:ADV_MNU                                  M Admin Functions
- #AUTH VPF:ADV_EDT_AUTH                             A Edit Transaction Authorizations
- #AUTHL VPF:ADV_LST_AUTH                             A List Transaction Authorizations
- #CINT CASE:CASE_UPLOAD_MENU                         4 Case Integration
- #CPY-IN VPF:ADV_SYS_COPY_IN                         A Recover Templates from VPF User
- #DATA VPF:ADV_LST_DATA                             A List Data Views in the Scratchpad
- #DDEF VPF:ADV_EDT_DOMDEF                             A Edit Domain Definitions
- #DDEF1 VPF:ADV_LST_DOMDEF                             A List Domain Definitions
- #DEBUG VPF:ADV_EDT_DEBUG                             A Debug Program Parameters
- #DEF VPF:ADV_EDT_DEFAULTS                             A Edit Generation Parameters
- #DHLP VPF:ADV_EDT_DOMHLP                             A Edit Domain Help Information
- #DHLP1 VPF:ADV_LST_DOMHLP                             A List Domain Help Information
- #DIR CONTROL:DIRECTORY                             4 List/Print Mantis Directory
F1-----F3-----F8-----F9-----F10-----F12-----F14-----CANCEL-----
HELP      EXIT      FWD      PRINT      EXHELP      PROFILE  FIRST      QUIT

```

Enter data in the appropriate fields:

S (Selection)

Description	Optional. Specifies the action you want to perform on the transaction.
Format	1 alphabetic character
Options	<p>S Display the Edit Transaction Definitions screen (#TRN) with the corresponding record. See “Transaction definitions #TRN” on page 159 for information on editing the transaction record.</p> <p>D Delete the transaction record.</p> <p>I Insert a transaction authorization for a personal ID. Enter the personal ID in a pop-up that will be displayed.</p>

Trans-ID

Description	Conditional. Displays the transaction records in alphabetical order. The first field in the Trans-ID column is <i>optional</i> . You can use it to list from a specific record forward. All remaining fields in the Trans-ID column are <i>display only</i> .
-------------	---



All system transactions begin with a hash character (#) by default; your system administrator may have changed this character.

Format	1–8 alphanumeric characters
--------	-----------------------------

Considerations

- ◆ To list from a specific transaction forward, enter the transaction ID (or its first few characters) in the first field and press the Forward key. AD/Advantage repositions the list from the new record forward.
- ◆ Type M transactions (Menus) can only be deleted using #MENUL.

Program

Description *Display.* Specifies the name of the program to be executed by the transaction.

Type

Description *Display.* Specifies the transaction type.

Options A AD/Advantage application

 M AD/Advantage menu

 4 MANTIS application

 3 3GL program

Description

Description *Display.* Specifies the transaction record's description.

Date/Time Changed

Description *Display.* Specifies the date and time of the last change to the Domain definition.

Personal_ID

Description *Display.* Specifies the personal ID of the user who made the last change to the Domain definition.

Terminal

Description *Display.* Specifies the Terminal of the user who made the last change to the Domain definition.

Transaction help #HLPL

To list transaction help defined in AD/Advantage, use the #HLPL transaction shown below:

```
====>                               List Transaction Help (#HLPL)                               YYYY.MM.DD HH:MM PC-00
-----
S   Trans-ID Lang  Description
-   #ACCL1  ENU    Audit Trail Information
-   #ACCL2  ENU    Most Used AD/A Transactions
-   #ACCL3  ENU    AD/A Transactions daily base
-   #ADMIN  ENU    Admin Functions
-   #AUTH   ENU    Edit Transaction Authorizations
-   #AUTHL  ENU    List Transaction Authorizations
-   #CPY-IN ENU
-   #DATA   ENU    List Data Views in the Scratchpad
-   #DDEF   ENU    Edit Domain Definitions
-   #DDEF   ENU    List Domain Definitions
-   #DEBUG  ENU    Debug Program Parameters
-   #DEF    ENU    Edit Generation Parameters
-   #DHLPL  ENU    Edit Domain Help Information
-   #DHLPL  ENU    List Domain Help Information
-   #EDIT   ENU    Edit Functions
-   #EXTL   ENU    List External Files
F1-----F3-----F8-----F9-----F10-----F12-----F14-----CANCEL-----
HELP      EXIT      FWD      PRINT     EXHELP    PROFILE   FIRST     QUIT
```

Enter data in the appropriate fields:

S (Selection)

- Description** *Optional.* Specifies the action you want to perform on the help record.
- Format** 1 alphabetic character
- Options** S Display the Edit Transaction Help screen (#HLP) with the corresponding record. See “[Transaction-level help #HLP](#)” on page 177 for information on editing a help record.
- D Delete the help record.

Trans-ID

- Description** *Conditional.* Displays the help records in alphabetical order. The first field in the Trans-ID column is *optional*. You can use it to list from a specific record forward. All remaining fields in the Trans-ID column are *display only*.



All system transactions begin with a hash character (#) by default; your system administrator may have changed this character.

- Format** 1–8 alphanumeric characters

- Consideration** To list from a specific help record forward, enter the record’s transaction ID (or its first few characters) in the first field and press the Forward key. AD/Advantage repositions the list from the new record forward.

Lang

- Description** *Display.* Specifies the language associated with the help record.



The default system language is U.S. English (ENU). Contact your local Cincom representative for other languages supported by AD/Advantage.

Description

- Description** *Display.* Specifies the help record’s description.

User groups defined in AD/Advantage #GROUPL

To list user groups, use the #GROUPL transaction shown below:

```

List User Groups (#GROUPL)
====>                                YYYY.MM.DD HH:MM PC-
-----
S      Group-ID   Group Name
-      ADMIN     System Administration
-      DEVELOP    Application Development
-
-
-
-
-
-
-
-
-
-
F1-----F3-----F8-----F9-----F10-----F12-----F14-----CANCEL-----
HELP          EXIT       FWD        PRINT      EXHELP     PROFILE    FIRST      QUIT

```

Enter data in the appropriate fields:

S (Selection)

- | | |
|--------------------|---|
| Description | <i>Optional.</i> Specifies the action you want to perform on the group. |
| Format | 1 alphabetic character |
| Options | <p>S Display the Edit User Groups screen (#GROUP) with the corresponding user group. For information on editing user groups, refer to the information on setting up user groups in <i>MANTIS Administration, OS/390, VSE/ESA</i>, P39-5005.</p> <p>D Delete the user group.</p> |

Group-ID

- | | |
|----------------------|--|
| Description | <i>Conditional.</i> Lists the group IDs in alphabetical order. The first field in the Group-ID column is <i>optional</i> . You can use it to list from a specific group forward. All remaining fields in the Group-ID column are <i>display only</i> . |
| Format | 1–8 alphabetic characters |
| Consideration | To list from a specific group forward, type the group ID (or its first few characters) in the first field and press the Forward key. AD/Advantage repositions the list from the new group forward. |

User messages #MSGL

To list user messages, use the #MSGL transaction shown below:

```

====>                               List User Messages (#MSGL)                               YYYY.MM.DD HH:MM PC-75
-----
S Lng Sys No  I Message Text
- ENU ADV ?*= I Invalid Operator, only = * ? /
- ENU ADV ASS E Please assign the Keys of the Secondary File
- ENU ADV BUF E Please insert the Header Record first
- ENU ADV BYE I Do You really want to quit?
- ENU ADV C01 E This Field is required
- ENU ADV C02 E Key in complete length
- ENU ADV C03 E Wrong value on position #, the format is: #
- ENU ADV C04 E Invalid, press # for more Information
- ENU ADV C05 E Input must be between #
- ENU ADV C06 E Value invalid, next record read
- ENU ADV CFP E The Program was not found
- ENU ADV CGE I Generation canceled
- ENU ADV CHA E You cannot enter an Entity beginning with #
- ENU ADV CIN E Invalid command
- ENU ADV CL1 I Transactions available to you
- ENU ADV CL2 I Your Personal Synonyms
F1-----F3-----F8-----F9-----F12-----F14-----CANCEL-----
HELP      EXIT      FWD      PRINT     PROFILE  FIRST    QUIT

```

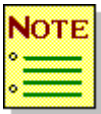
Enter data in the appropriate fields:

S (Selection)

Description	<i>Optional.</i> Specifies the action you want to perform on the user message.
Format	1 alphabetic character
Options	<p>S Display the Edit User Messages (#MSG) screen with the corresponding message. For information on editing the message, refer to the information on setting up user messages in <i>MANTIS Administration, OS/390, VSE/ESA</i>, P39-5005.</p> <p>D Delete the message.</p>

Lng

Description	<i>Conditional.</i> Lists the messages' language IDs in alphabetical order. The first field in the Lng column is <i>optional</i> . You can use it to list from a specific language forward. All remaining fields in the Lng column are <i>display only</i> .
--------------------	--



The default system language is U.S. English (ENU). Contact your local Cincom representative for other languages supported by AD/Advantage.

Format	3 alphanumeric characters
Consideration	To list from a specific language forward, type the language ID (or its first few characters) in the first field and press the Forward key.

Sys

Description	<i>Conditional.</i> Lists the messages' subsystem IDs in alphabetical order. The first field in the Sys column is <i>optional</i> . You can use it to list from a specific subsystem forward. All remaining fields in the Sys column are <i>display only</i> .
Format	3 alphanumeric characters
Consideration	To list from a specific subsystem forward, type the subsystem ID (or its first few characters) in the first field and press the Forward key. AD/Advantage repositions the list from the new subsystem forward.

No

- Description** *Conditional.* Displays the messages' numbers in alphanumeric order. The first field in the No column is *optional*. You can use it to list from a specific number forward. All remaining fields in the No column are *display only*.
- Format** 3 alphanumeric characters
- Consideration** To list from a specific message number forward, enter the message number (or its first few characters) in the first field and press the Forward key. AD/Advantage repositions the list from the new number forward.

I (Indication of Severity)

- Description** *Display.* Indicates the severity level of the message.
- Options** I Informational.
- W Warning.
- A Action required.
- C Confirmation.
- E Error.
- F Fatal.

Message Text

- Description** *Display.* Specifies the text of the message.

6

Generating transactions

After defining a transaction with a program name, a file name, and a screen name using #TRN, you are ready to generate. To do so, use the AD/Advantage generation transactions, which automatically generate the program and screen defined in your transaction. After you generate, your transaction is fully executable.

The following sections outline:

- ◆ How to regenerate default values for a screen (see “[Default values for screens #GENDEF](#)” on page 274).
- ◆ How to generate programs from external and internal files, interfaces, or non-SQL database files defined in your transaction (see “[Programs for index files #GENIND](#)” on page 275).
- ◆ How to generate programs from SQL tables or views defined in your transaction (see “[SQL program #GENSQL](#)” on page 278).

Default values for screens #GENDEF

After you have generated a screen and program using the #GENIND or #GENSQL transactions (see “Programs for index files #GENIND” on page 275 and “SQL program #GENSQL” on page 278, respectively), you can regenerate the screen using the #GENDEF transaction shown below. Use #GENDEF to update the default values or required fields in a screen. To define or edit default values for fields, use #DDEF (see “Domain Definitions Screen #DDEF” on page 125 for information).

After you enter the screen name, press the Generate key or type GEN at the command line and press ENTER to regenerate the default values for the screen.

Generate Default Values for Screens (#GENDEF)

====> YYYY.MM.DD HH:MM PC-

Please specify a Screen Name for which to generate
Default Values according to the Dictionary.

Screen to be processed: _____

F1-----F3-----F10-----F12-----F13-----CANCEL-----

HELPEXITEXHELPPROFILEGENQUIT

Enter data in the following field:

Screen to be processed

Description	<i>Required.</i> Specifies the name of the screen to be processed.
Format	<i>User name:screen name</i>

Programs for index files #GENIND

To generate programs from external and internal files, non-SQL database files, or interfaces, use the #GENIND transaction shown below.

After you enter the transaction ID and other data, press the Generate key or type GEN at the command line and press ENTER to generate the program.

```

Generate a Program for Indexfiles (#GENIND)
====>                                YYYY.MM.DD HH:MM PC-
-----
Trans-ID to be generated..  _____

Generate a Screen?.....  _
Use all View Fields?.....  _
Overwrite if exist?.....  _
-----
Generated Program.....
Screen.....
Primary File.....
Secondary File.....

F1-----F3-----F10-----F12-----F13-----CANCEL-----
HELP      EXIT      EXHELP    PROFILE  GEN      QUIT

```

Enter data in the appropriate fields:

Trans-ID

Description	<i>Required.</i> Specifies the transaction ID of the program to be generated.
Format	1–8 alphanumeric characters

Generate a Screen

Description	<i>Optional.</i> Specifies whether the a screen should be generated.
Default	(blank)
Options	(blank) Does not generate a screen. Y Generates a screen.

Use all View Fields

Description	<i>Required.</i> Specifies whether you want to: (1) use all fields from the view you specified in #TRN, or (2) select from a list of fields in the view.
Default	(blank)
Options	(blank) Displays a pop-up window listing the fields in the view (during generation, AD/Advantage). AD/Advantage selects the key field for you, and you select the fields you want to include. Y Use all fields in the view.

Overwrite if exist

Description	<i>Optional.</i> Specifies whether to overwrite existing programs and screens without a warning.
Default	(blank)
Options	(blank) Entity will not be overwritten. If it exists, the generation process will be canceled. Y Existing programs and screens are to be overwritten without a warning.

Generated Program

Description *Display.* Specifies the name of the program to be generated, including the user qualifier. For example, EXAMPLES:CUST. This is a program called CUST in the user EXAMPLES.

Consideration #GENIND automatically fills in this field based on your #TRN definition.

Screen

Description *Display.* Specifies the screen name for the transaction, including the user qualifier. For example, EXAMPLES:ABC. This is a screen called ABC in the user EXAMPLES.

Consideration #GENIND automatically fills in this field based on your #TRN definition.

Primary File

Description *Display.* Specifies the name of the primary file used by this transaction.

Consideration #GENIND automatically fills in this field based on your #TRN definition.

Secondary File

Description *Display.* Specifies the name of the secondary file used by this transaction.

Consideration #GENIND automatically fills in this field based on your #TRN definition.

SQL program #GENSQL

To generate programs from SQL tables or views, use the #GENSQL transaction shown below.

After you have entered the transaction ID and other data, press the Generate key or type GEN at the command line and press ENTER to generate the program.

Generate a SQL Program (#GENSQL)

====> YYYY.MM.DD HH:MM PC-

Trans-ID to be generated.. _____

Generate a Screen..... _

Use all Table Fields?..... _

Overwrite if exist?..... _

Generated Program.....

Screen.....

View-Name.....

F1-----F3-----F10-----F12-----F13-----CANCEL-----

HELPEXITEXHELPPROFILEGENQUIT

Enter data in the appropriate fields:

Trans-ID

Description	<i>Required.</i> Specifies the transaction ID of the program to be generated.
Format	1–8 alphanumeric characters

Generate a Screen

Description	<i>Optional.</i> Specifies whether the a screen should be generated.
Default	(blank)
Options	(blank) Does not generate a screen. Y Generates a screen.

Use all Table Fields

Description	Specifies whether you want to: (1) use all fields from the view (table) you specified in #TRN, or (2) select from a list of fields in the table.
Default	(blank)
Options	(blank) Displays a pop-up window listing the fields in the view (during generation, AD/Advantage). AD/Advantage selects the key field for you, and you select the fields you want to include. Y Use all fields in the table.

Overwrite if exist

Description	<i>Optional.</i> Specifies whether to overwrite existing entities without a warning.
Default	(blank)
Options	(blank) Entity will not be overwritten. If it exists, the generation process will be canceled. Y Existing entities are to be overwritten without a warning.

Generated Program

Description *Display.* Specifies the name of the program to be generated, including the user qualifier. For example, EXAMPLES:CUST. This is a program called CUST in the user EXAMPLES.

Consideration #GENSQL automatically fills in this field based on your #TRN definition.

Screen

Description *Display.* Specifies the screen name for the transaction, including the user qualifier. For example, EXAMPLES:ABC. This is a screen called ABC in user EXAMPLES.

Consideration #GENSQL automatically fills in this field based on your #TRN definition.

View-Name

Description *Display.* Specifies the primary SQL table or view used by this transaction.

Consideration #GENSQL automatically fills in this field based on your #TRN definition.

Generating mixed transactions

When primary and secondary files are specified in a transaction definition, AD/Advantage will generate a mixed transaction. This is a transaction where the Primary File appears as a single record on the first half of the screen and the Secondary File record appears on a list in the second half of the screen. By default, the AD/Advantage generator maps the keys of the Primary File to the key fields in the corresponding position (1 to n) in the Secondary File.

When generating against internal files, external file views, or SQL tables, the generator will also display an additional pop-up screen that shows the key fields in the primary file and the position (1 to n) of the matching keys of the Secondary File. When generated against SQL tables, it is also possible to override the order of the key fields in the primary and secondary tables. This can be done when selecting fields for the application by overtyping the K next to the key fields with a number (1 to 9) that denotes the order of the key fields for the application. For best performance of an application, the SQL table should have an index that matches this order.

Printing transactions

The following sections describe how to print AD/Advantage entities.

MANTIS directory #DIR

To print the MANTIS Directory, use the #DIR transaction. #DIR accesses the MANTIS Directory Facility. The Directory Facility allows you to view or print an alphabetical listing of all current programs, screens, files, prompters, interfaces, and views in your library.

When you enter the Directory Facility, you are automatically in List mode. To change to Print mode, press PF24 or type 24 and press ENTER.

Print	M A N T I S		YY/MM/DD
			HH:MM:SS
Directory Facility			
Programs	1	DL/I Call Profiles	13
Screens	2	DL/I Segment Layouts	14
MANTIS File Profiles ..	3		
Prompters	4		
Interfaces	5		
TOTAL File Views	6		
External File Views ...	7	Toggle Print On	24
Logical Views	8		
Scenarios	9	Terminate This Facility ..	Cancel
: :			

For information on how to use the Directory Facility:

- ◆ **Mainframe users:** Refer to *MANTIS Facilities, OS/390, VSE/ESA*, P39-5001.
- ◆ **UNIX and OpenVMS users:** Refer to *MANTIS Facilities, OpenVMS/UNIX*, P39-1300.
- ◆ **PC users:** Refer to *MANTIS for Windows Facilities Reference Manual*, P19-2301.

Menu definitions #MENUP

To print menu definitions, use the #MENUP transaction shown below:

```
====>                                Print Menu Definitions (#MENUP)          YYYY.MM.DD HH:MM PC-
-----
Printer-ID..... PRIN                                0 Pages printed

Menu-ID (Transaction)
-----
From Key..... #EDIT_____
To Key..... _____

F1-----F3-----F10-----F14-----CANCEL-----
HELP      EXIT      EXHELP    FIRST      QUIT
```

Enter data in the appropriate fields:

Printer-ID

Description	<i>Optional.</i> <ul style="list-style-type: none">◆ For Mainframe users: Specifies the ID of the printer that you would like to use.◆ For UNIX, OpenVMS, and PC users: Specifies one of the following:<ul style="list-style-type: none">- The ID of the printer that you would like to use- The name of the file to which you would like to print
Default	The printer ID that your system administrator specified in your personal ID
Format	1–16 alphanumeric characters
Consideration	Enter SCREEN in this field to print to the screen.

Pages printed

Description	<i>Display.</i> Specifies the number of pages the printer has printed.
--------------------	--

From Key

Description	<i>Required.</i> The transaction ID of one of the following: <ul style="list-style-type: none">◆ A single menu definition you want to print.◆ The <i>first</i> menu definition if you want to print a range of definitions. When printing a range, you must enter the transaction ID of the <i>last</i> menu definition in the To Key field (see below).
Format	1–8 alphanumeric characters

To Key

Description	<i>Required</i> if you want to print a range of menu definitions. Specifies the transaction ID of the last menu definition in the range.
Format	1–8 alphanumeric characters

Personal IDs #IDP

To print personal ID records, use the #IDP transaction shown below:

===>	Print Personal IDs (#IDP)	YYYY.MM.DD HH:MM PC-

Printer-ID.....	PRIN	0 Pages printed
	Personal-ID	

From Key.....	DEVELOP_____	
To Key.....	_____	
F1-----F3-----F10-----F14-----CANCEL-----		
HELP	EXIT	EXHELP FIRST QUIT

Enter data in the appropriate fields:

Printer-ID

Description	<i>Optional.</i> <ul style="list-style-type: none">◆ For Mainframe users: Specifies the ID of the printer that you would like to use.◆ For UNIX, OpenVMS, and PC users: Specifies one of the following:<ul style="list-style-type: none">- The ID of the printer that you would like to use- The name of the file to which you would like to print
Default	The printer ID that your system administrator specified in your personal ID
Format	1–16 alphanumeric characters
Consideration	Enter SCREEN in this field to print to the screen.

Pages Printed

Description	<i>Display.</i> Specifies the number of pages the printer has printed.
--------------------	--

From Key

Description	<i>Required.</i> The personal ID of one of the following: <ul style="list-style-type: none">◆ A single personal ID record you want to print.◆ The <i>first</i> personal ID record if you want to print a range of records. When printing a range of records, you must enter the personal ID of the <i>last</i> record in the To Key field (see below).
Format	1–16 alphanumeric characters

To Key

Description	<i>Required</i> if you want to print a range of personal ID records. Specifies the personal ID of the last record in the range.
Format	1–16 alphanumeric characters

Transaction records #TRNP

To print transaction definition records, use the #TRNP transaction shown below:

Print Transaction Definitions (#TRNP)	
====>	YYYY.MM.DD HH:MM PC-FF

Printer-ID.....	PRIN 0 Pages printed
	Trans-ID

From Key.....	_____
To Key.....	_____
Mode.....	_____ (LIST or DETAIL)
F1-----F3-----F10-----F12-----CANCEL-----	-----
HELP	EXIT EXHELP PROFILE QUIT

Enter data in the appropriate fields:

Printer-ID

Description	<i>Optional.</i> <ul style="list-style-type: none">◆ For Mainframe users: Specifies the ID of the printer that you would like to use.◆ For UNIX, OpenVMS, and PC users: Specifies one of the following:<ul style="list-style-type: none">- The ID of the printer that you would like to use- The name of the file to which you would like to print
Default	The printer ID that your system administrator specified in your personal ID
Format	1–16 alphanumeric characters
Consideration	Enter SCREEN in this field to print to the screen.

Pages Printed

Description	<i>Display.</i> Specifies the number of pages the printer has printed.
--------------------	--

From Key

Description	<i>Required.</i> The transaction ID of one of the following: <ul style="list-style-type: none">◆ A single transaction definition you want to print.◆ The <i>first</i> transaction definition if you want to print a range of definitions. When printing a range of definitions, you must enter the transaction ID of the <i>last</i> record in the To Key field (see below).
Format	1–8 alphanumeric characters

To Key

Description	<i>Required</i> if you want to print a range of transaction definitions. Specifies the transaction ID of the last record in the range.
Format	1–8 alphanumeric characters

Mode

Description	<i>Optional.</i> Specifies whether you want AD/Advantage to print one transaction definition per line or one transaction definition per page.
Options	Detail Prints one transaction definition per page. List Prints one transaction definition per line.

Transaction-level help #HLPP

To print transaction-level help records, use the #HLPP transaction shown below:

Print Transaction Help (#HLPP)

====>YYYY.MM.DD HH:MM PC-03

Printer-ID.....

PRIN

0 Pages printed

Language

Trans-ID

From Key.....

To Key.....

F1-----F3-----F10-----F12-----CANCEL-----

HELPEXITEXHELPPROFILEQUIT

Enter data in the appropriate fields:

Printer-ID

Description	<i>Optional.</i> <ul style="list-style-type: none">◆ For Mainframe users: Specifies the ID of the printer that you would like to use.◆ For UNIX, OpenVMS, and PC users: Specifies one of the following:<ul style="list-style-type: none">- The ID of the printer that you would like to use- The name of the file to which you would like to print
Default	The printer ID that your system administrator specified in your personal ID
Format	1–16 alphanumeric characters
Consideration	Enter SCREEN in this field to print to the screen.

Pages Printed

Description	<i>Display.</i> Specifies the number of pages the printer has printed.
-------------	--

From Key

- Description** *Required.* The language ID and transaction ID of one of the following:
- ◆ A single transaction help record that you want to print.
 - ◆ The *first* transaction help record if you want to print a range of records. When printing a range of records, you must enter the language ID and transaction ID of the *last* record in the To Key field (see below).

Format 3 alphanumeric characters for the language ID
1–8 alphanumeric characters for the transaction ID



The default system language is U.S. English (ENU). Contact your local Cincom representative for other languages supported by AD/Advantage.

To Key

Description *Required* if you want to print a range of records. Specifies the language ID and transaction ID of the last record in the range.

Format 3 alphanumeric characters for the language ID
1–8 alphanumeric characters for the transaction ID



The default system language is U.S. English (ENU). Contact your local Cincom representative for other languages supported by AD/Advantage.

User groups #GROUPP

To print user group records, use the #GROUPP transaction shown below:

Print User Groups (#GROUPP)		YYYY.MM.DD HH:MM PC-FF
=====		
Printer-ID.....	PRIN	0 Pages printed
	Group-ID	

From Key.....	_____	
To Key.....	_____	
F1-----F3-----F10-----F12-----CANCEL-----		
HELP	EXIT	EXHELP PROFILE QUIT

Enter data in the appropriate fields:

Printer-ID

Description	<i>Optional.</i> <ul style="list-style-type: none">◆ For Mainframe users: Specifies the ID of the printer that you would like to use.◆ For UNIX, OpenVMS, and PC users: Specifies one of the following:<ul style="list-style-type: none">- The ID of the printer that you would like to use- The name of the file to which you would like to print
Default	The printer ID that your system administrator specified in your personal ID
Format	1–16 alphanumeric characters
Consideration	Enter SCREEN in this field to print to the screen.

Pages Printed

Description	<i>Display.</i> Specifies the number of pages the printer has printed.
--------------------	--

From Key

Description	<i>Required.</i> The group ID of one of the following: <ul style="list-style-type: none">◆ A single group record that you want to print.◆ The <i>first</i> group record if you want to print a range of records. When printing a range of records, you must enter the group ID of the <i>last</i> record in the To Key field (see below).
Format	1–8 alphanumeric characters

To Key

Description	<i>Required</i> if you want to print a range of group records. Specifies the group ID of the last record in the range.
Format	1–8 alphanumeric characters

User messages #MSGP

To print user messages, use the #MSGP transaction shown below:

Print User Messages (#MSGP)		YYYY.MM.DD HH:MM PC-FF	
=====			
Printer-ID.....	PRIN	0 Pages printed	
	Language-ID	Subsystem	Message-No.

From Key.....	_____	_____	_____
To Key.....	_____	_____	_____
F1-----F3-----F10-----F12-----CANCEL-----			
HELP	EXIT	EXHELP	PROFILE QUIT

Enter data in the appropriate fields:

Printer-ID

Description *Optional.*

- ◆ **For Mainframe users:** Specifies the ID of the printer that you would like to use.
- ◆ **For UNIX, OpenVMS, and PC users:** Specifies one of the following:
 - The ID of the printer that you would like to use
 - The name of the file to which you would like to print

Default The printer ID that your system administrator specified in your personal ID

Format 1–16 alphanumeric characters

Consideration Enter SCREEN in this field to print to the screen.

Pages Printed

Description *Display.* Specifies the number of pages the printer has printed.

From Key

Description *Required.* The language ID, subsystem ID, and message number of one of the following:

- ◆ A single message you want to print.
- ◆ The *first* message if you want to print a range of messages. When printing a range of messages, you must enter the language ID, subsystem ID, and message number of the *last* message in the To Key field (see below).

Format 3 alphanumeric characters for the language ID, subsystem ID, and message number.



The default system language is U.S. English (ENU). Contact your local Cincom representative for other languages supported by AD/Advantage.

To Key

Description *Required* if you want to print a range of messages. Specifies the language ID, subsystem ID, and message number. of the last messages in the range.

Format 3 alphanumeric characters for the language ID, subsystem ID, and message number.



The default system language is U.S. English (ENU). Contact your local Cincom representative for other languages supported by AD/Advantage.

Authorizations #AUTHP

To print authorizations, use the #AUTHP transaction as shown in the following example:

Print User Messages (#AUTHP)		YYYY.MM.DD HH:MM PC-FF	
=====			
Printer-ID.....	PRIN	0 Pages printed	
	Trans-ID	Group-ID	Personal-ID.

From Key.....	_____	_____	_____
To Key.....	_____	_____	_____
F1-----F3-----F10-----F12-----CANCEL-----			
HELP	EXIT	EXHELP	PROFILE QUIT

Enter data in the appropriate fields:

Printer-ID

Description	<i>Optional.</i> <ul style="list-style-type: none">◆ For Mainframe users: Specifies the ID of the printer that you would like to use.◆ For UNIX, OpenVMS, and PC users: Specifies one of the following:<ul style="list-style-type: none">- The ID of the printer that you would like to use- The name of the file to which you would like to print
Default	The printer ID that your system administrator specified in your personal ID
Format	1–16 alphanumeric characters
Consideration	Enter SCREEN in this field to print to the screen.

Pages Printed

Description	<i>Display.</i> Specifies the number of pages the printer has printed.
-------------	--

From Key

Description	<i>Required.</i> The transaction ID, group ID, and personal ID of one of the following: <ul style="list-style-type: none">◆ A single authorization you want to print.◆ The <i>first</i> authorization if you want to print a range of messages. When printing a range of authorizations, you must enter the transaction ID, group ID, and personal ID of the <i>last</i> authorization in the To Key field (see below).
Format	3 alphanumeric characters for the transaction ID, group ID, and personal ID

To Key

Description	<i>Required</i> if you want to print a range of authorizations. Specifies the transaction ID, group ID, and personal ID of the last messages in the range.
Format	3 alphanumeric characters for the transaction ID, group ID, and personal ID

Accessing MANTIS facilities

AD/Advantage provides several transactions that allow you to access MANTIS facilities directly from the AD/Advantage command line. The following sections briefly describe each MANTIS facility. Your MANTIS facility screens will probably look similar, but not necessarily identical, to the screens shown in this chapter. For detailed information on each facility, refer to the appropriate documentation.



Some of the facilities described in this chapter may not be available at your site, because they are one or more of the following:

- ◆ Optional MANTIS features not used at your site
 - ◆ Not available on the platform or platforms in use at your site
 - ◆ No longer supported by Cincom
-

Initializing the Entity Transformer Scratchpad #ETI

To initialize the Entity Transformer Scratchpad, use the #ETI transaction. Each MANTIS user has its own set of scratchpad files. Use the #ETI transaction in the following situations:

- ◆ If you add a new MANTIS user, you must run the #ETI transaction so that the personal IDs associated with the new MANTIS user will be able to use the AD/Advantage generator.
- ◆ If a MANTIS user's password changes, you must run the #ETI transaction to re-initialize the scratchpad.

To create a new scratchpad, you must first delete all the internal files prefixed with CASE_ using the #INTL transaction. (For more information on the #INTL transaction, see “[Internal files #INTL](#)” on page 199.) After deleting the internal files, you must run the #ETI transaction to create the new scratchpad.

MANTIS Facility Selection Menu #MSTART

To access the MANTIS Facility Selection Menu, use the #MSTART transaction.

FACILMENU02

MANTIS Facility Selection Menu

YYYY:MM:DD
HH:MM:SS

Please select one of the menu options below.

Run a Program by Name 1

Display a Prompter 2

Design a Program 3

Design a Screen 4

Design a MANTIS File View .. 5

Design a Prompter 6

Design an Interface 7

Design a TOTAL File View ... 8

Design an External File View 9

DL/I Access View 10

Sign On as Another User 11

Search Facility 12

Query Report Writer 13

Directory Facility 14

Transfer Facility 15

Cross Reference Facility ... 16

Entity Transformers 17

Universal Export Facility .. 18

Print Facility 19

F1=HELP F3=END F12=CANCEL

For information on how to use the MANTIS Facility Selection Menu:

- ◆ **Mainframe users:** Refer to *MANTIS Facilities, OS/390, VSE/ESA*, P39-5001.
- ◆ **UNIX and OpenVMS users:** Refer to *MANTIS Facilities, OpenVMS/UNIX*, P39-1300.
- ◆ **PC users:** Refer to *MANTIS for Windows Facilities Reference Manual*, P19-2301.

Component Engineering Facility #CEF

To access the Component Engineering Facility, use the #CEF transaction. The Component Engineering Facility allows you to establish reusable building blocks of MANTIS code. The system tracks and automatically reports these building blocks, called *components*, to limit your maintenance effort, save time, and significantly improve accuracy.

```
====>

Please select one of the menu items below.

      Program      Component Engineering  Bind Options  Utilities
-----
1.  List          7.  CEF Check           12.  HPO Check   18.  Audit Trail
2.  Edit          8.  "  Compose           13.  "  Bind     19.  Browse Audit Trail
3.  Profile       9.  "  Decompose          14.  "  Unbind   20.  "    Prgm Profile
4.  Purge        10.  CREF Programs        15.  SQL Check   21.  Trigger List
5.  Copy         11.  Bill of Materials      16.  "  Bind     22.  SQL Maint
6.  Rename                          17.  "  Unbind

FAC000I:Ready
F1=HELP  F2=EXHELP  F3=EXIT  F4=PROMPT  F5=REFRESH  F9=RETRIEVE  F12=CANCEL ...
```

For information on using the Component Engineering Facility, refer to *MANTIS Program Design and Editing, OS/390, VSE/ESA*, P39-5013.

Case Integration Facility #CINT

To access the CASE Integration Facility, use the #CINT transaction. The CASE Integration Facility extracts data definitions and specifications from external sources (CASE products, data dictionary systems, repositories, etc.).

User:	CASE INTEGRATION FACILITY 1.2(07)	YY/MM/DD
EXAMPLES		HH:MM:SS

Import into Scratchpad	(PF1)	
Generate from Scratchpad	(PF2)	
Decode from Library	(PF3)	
Help	(PF12)	
Terminate this facility	(CANCEL)	

Cross Reference Facility #XREF

To access the Cross Reference Facility (also called MANTIS XREF), use the #XREF transaction. The Cross Reference Facility allows you to view list and cross-reference information for the entities and elements on the MANTIS cluster.

```

MANT XREF 3.1          MANTIS CROSS REFERENCE SYSTEM          HH:MM MM/DD/YY
                        MENU                                LAST UPD      MM/DD/YY
                        -----
PLEASE SELECT ONE OF THE FOLLOWING ==>      :

----EXTERNAL ENTITIES----      ---DATA ELEMENTS---      -----XREF INFO-----
DL.  DL/I - IMS MENU          NL.  NAME LIST              NO.  LIMITATIONS
EE.  MENU                    NX.  NAME XREF              PF.  PF-KEY USAGE
                                      RN.  RELEASE NEWS

----MANTIS ENTITIES-----
----LIST-----      ----WHAT-----      -----XREF-----      ----UNREF.-----
LA.  EXT. ACCESS      WA.  EXT. ACCESS      XA.  EXT. ACCESS      UA.  EXT. ACCESS
LF.  MANTIS FILES      WF.  MANTIS FILES      XF.  MANTIS FILES      UF.  MANTIS FILES
LH.  PROMPTERS          WH.  PROMPTERS          XH.  PROMPTERS          UH.  PROMPTERS
LI.  INTERFACES          WI.  INTERFACES          XI.  INTERFACES          UI.  INTERFACES
LP.  PROGRAMS            WP.  PROGRAMS            XP.  PROGRAMS            UP.  PROGRAMS
LS.  SCREENS             WS.  SCREENS            XS.  SCREENS            US.  SCREENS
LT.  DBMS-VIEWS          WT.  DBMS-VIEWS          XT.  DBMS-VIEWS          UT.  DBMS-VIEWS
LU.  USERS
LV.  RDM VIEWS
                                XV.  RDM VIEWS

PA2 = STOP    PF1 = HELP    CLEAR = EXIT    SI = SIGN-ON    TU = TUTORIAL

```

For information on using the Cross Reference Facility (MANTIS XREF), refer to *MANTIS XREF, OS/390, VSE/ESA, OpenVMS*, P39-0011.

Directory Facility #DIR

To access the Directory Facility, use the #DIR transaction. The Directory Facility allows you to view or print an alphabetical listing of all current programs, screens, files, prompters, interfaces, and views in your library.

When you enter the Directory Facility, you are automatically in List mode. To change to Print mode, press PF24 or type 24 and press ENTER.

List	M A N T I S		YY/MM/DD
			HH:MM:SS
Directory Facility			
Programs	1	DL/I Call Profiles	13
Screens	2	DL/I Segment Layouts	14
MANTIS File Profiles ..	3		
Prompters	4		
Interfaces	5		
TOTAL File Views	6		
External File Views ...	7	Toggle Print On	24
Logical Views	8		
Scenarios	9	Terminate This Facility ..	Cancel
	:	:	

For information on how to use the Directory Facility:

- ◆ **Mainframe users:** Refer to *MANTIS Facilities, OS/390, VSE/ESA*, P39-5001.
- ◆ **UNIX and OpenVMS users:** Refer to *MANTIS Facilities, OpenVMS/UNIX*, P39-1300.
- ◆ **PC users:** Refer to *MANTIS for Windows Facilities Reference Manual*, P19-2301.

Prompter Display Facility #DPRO

To access the Prompter Display Facility, use the #DPRO transaction. The Display a Prompter Facility allows you to view prompters only; you cannot alter the contents of a prompter when you use this facility.

PROMSEL01	MANTIS Prompter Display Facility	YY/MM/DD HH:MM:SS
Specify the name of the prompter to be displayed:		
:		
:		
F3=EXIT F12=CANCEL		

For information on how to use the Display a Prompter Facility:

- ◆ **Mainframe users:** Refer to *MANTIS Facilities, OS/390, VSE/ESA*, P39-5001.
- ◆ **UNIX and OpenVMS users:** Refer to *MANTIS Facilities, OpenVMS/UNIX*, P39-1300.
- ◆ **PC users:** Refer to *MANTIS for Windows Facilities Reference Manual*, P19-2301.

DL/I Call Profile Design Facility #DLI

To access the DL/I Call Profile Design Facility, use the #DLI transaction. The DL/I Call Profile Design Facility allows you to create, maintain and view DL/I Call Profiles to be executed on MANTIS for the IBM mainframe.

M A N T I S

DL/I Call Profile Design Facility

```

Create or update profile definition .. 1
Update profile layout ..... 2
Library Functions ..... 3
List directory of profiles ..... 4
Print Directory of profiles ..... 5
Print completed design ..... 6
Terminate this facility ..... CANCEL

```

: :

For information on how to use the DL/I Call Profile Design Facility:

- ◆ **Mainframe users:** Refer to *MANTIS DL/I Programming, OS/390, VSE/ESA*, P39-5008.
- ◆ **PC users:** Refer to *MANTIS for Windows Facilities Reference Manual*, P19-2301.

Entity Transformers #ET

To access Entity Transformers, use the #ET transaction. Entity Transformers is provided for compatibility with MANTIS and earlier releases of AD/Advantage. All entity transformer functions for AD/Advantage are available in the individual entity list transactions (#PRGL, #SCRL, #INTL, #EXTL, #INFL, #DATA, and #TEXTL).

```

User:          (SL 2102) Directory of ????????          YY/MM/DD
EXAMPLES                                     HH:MM:SS
          Command ==>          (? for list)          Page:
New entity type ==>
Entity name ==>
S ----- Name -----
* * * * *
*      Select Entity Type      *
* with an 'S' and press 'ENTER' ----- *
*      INTERNAL FILES          *
*      EXTERNAL FILES          *
*      SCREENS                  *
*      PROGRAMS                 *
*      INTERFACES               *
*      RDM VIEWS                *
*      PROMPTERS                *
*      ELEMENTS                 *
*      TEXT DATA               *
*      DATA VIEWS              *
*                               *
* * * * *
CASZLIA:(S)Select an item from the displayed list or 'CANCEL' to return

```

For information on using Entity Transformers, refer to *MANTIS Entity Transformers*, P39-0013.

Excelerator Integration Facility (PC only) #EINT

To access the Excelerator Integration Facility, use the #EINT transaction. System specifications defined with Excelerator can be used to automatically generate AD/Advantage executable design objects, processes, and reusable components.

AD/Advantage Excelerator/WIN	Integration Facility	YY/MM/DD
Version 1.5(02)		HH:MM:SS

Application Name. . . . DEMO	Reverse Engineering . . . N
	Component Engineering.... Y
Choice	Comment Character... .
(Y=Yes,N=No)	Component Prefix..
	Library...
Generate SUPRA SQL?. N	Password..
Generate Screens?. .+-----+ Generate into EXAMPLES	
Generate Programs? . AD/Advantage PC User?..... N	
+-----+	
Generate External File Views?. N	
Generate SUPRA RDM?. N	
Excelerator Transfer File. demodb2.exp	
Screen File. demo.prn	
Alt/1 - HELP	Return - PROCESS
	Escape - EXIT

External File View Design Facility #EXT

To access the External File View Design Facility, use the #EXT transaction. The External File View Facility allows you to design and create external file views for file systems such as VSAM, RMS, C-ISAM, and others.

M A N T I S

External File View Design Facility

```

Create or update file views ..... 1
Update file view layout ..... 2
Library functions ..... 3
Directory of file views ..... 4
Print completed design ..... 5
List allowed external files ..... 6
Terminate this facility ..... CANCEL

```

: :

For information on how to use the External File View Design Facility:

- ◆ **Mainframe users:** Refer to *MANTIS Facilities, OS/390, VSE/ESA*, P39-5001.
- ◆ **UNIX and OpenVMS users:** Refer to *MANTIS Facilities, OpenVMS/UNIX*, P39-1300.
- ◆ **PC users:** Refer to *MANTIS for Windows Facilities Reference Manual*, P19-2301.

File Design Facility #INT

To access the File Design Facility, use the #INT transaction. The File Design Facility allows you to create and update MANTIS files.

```
      M A N T I S

      File Design Facility

      Create or update file profiles ..... 1
      Update record layout ..... 2
      Library functions ..... 3
      Directory of file profiles ..... 4
      Print completed design ..... 5
      Terminate this facility ..... CANCEL

      :      :
```

For information on how to use the File Design Facility:

- ◆ **Mainframe users:** Refer to *MANTIS Facilities, OS/390, VSE/ESA*, P39-5001.
- ◆ **UNIX and OpenVMS users:** Refer to *MANTIS Facilities, OpenVMS/UNIX*, P39-1300.
- ◆ **PC users:** Refer to *MANTIS for Windows Facilities Reference Manual*, P19-2301.

IEW/ADW Integration Facility (PC only) #IINT

To access the IEW/ADW Integration Facility, use the #IINT transaction. IEW/ADW Integration allows specifications created in IEW and ADW to automatically generate AD/Advantage executable design objects, processes, and reusable components.

AD/Advantage ADW27 Integration Facility Version 1.5(02)		YY/MM/DD HH:MM:SS

Application Name DEMO	Reverse Engineering.....	N
	Component Engineering....	Y
Choice	Comment Character	
	(Y=Yes,N=No)	Component Prefix..
		Library...
Generate SUPRA SQL? N		Password..
		Work Files..
Generate Screens? N		
	+-----+	
Generate Programs? .	Generate into EXAMPLES	
	AD/Advantage PC User?..... N	
Generate External Fi	+-----+	
Generate SUPRA RDM? N		
ADTEXT file (for Programs) e:\adw27\supplier.ad		
Program Analysis Report (for Programs) e:\cincom\mantis21\supplier.rpt		
ADW Formatted Text Files Path. e:\cincom\mantis21		

Interface Design Facility #INF

To access the Interface Design Facility, use the #INF transaction. The Interface Design Facility allows you to design and save new interface profiles and update and maintain existing interface profiles.

M A N T I S

Interface Design Facility

```

Create or update interface profile ... 1
Update area layout ..... 2
Library functions ..... 3
Directory of interfaces ..... 4
Print completed design ..... 5
Terminate this facility ..... CANCEL

```

: :

For information on how to use the Interface Design Facility:

- ◆ **Mainframe users:** Refer to *MANTIS Facilities, OS/390, VSE/ESA*, P39-5001.
- ◆ **UNIX and OpenVMS users:** Refer to *MANTIS Facilities, OpenVMS/UNIX*, P39-1300.
- ◆ **PC users:** Refer to *MANTIS for Windows Facilities Reference Manual*, P19-2301.

Program Design Facility #PRG

To access the Program Design Facility, use the #PRG transaction. The Program Design Facility allows you to create, maintain, view, and print MANTIS programs.

M A N T I S	
PROGRAM DESIGN FACILITY	
UPDATE PROGRAM	(S)..... 1
DIRECTORY OF PROGRAMS	2
LIBRARY FUNCTIONS	3
PRINT PROGRAM	(L)..... 4
BIND PROGRAM	(B)..... 5
UNBIND PROGRAM	(U)..... 6
PURGE PROGRAM	(P)..... 7
PURGE PROGRAM SOURCE	(N)..... 8
EDIT PROGRAM	(E)..... 9
TERMINATE THIS FACILITY	CANCEL
:	:
:	:
CURRENT PROGRAM : EXAMPLES	

For information on how to use the Program Design Facility:

- ◆ **Mainframe users:** Refer to *MANTIS Program Design and Editing, OS/390, VSE/ESA*, P39-5013.
- ◆ **UNIX and OpenVMS users:** Refer to *MANTIS Facilities, OpenVMS/UNIX*, P39-1300.
- ◆ **PC users:** Refer to *MANTIS for Windows Facilities Reference Manual*, P19-2301.

Print Facility #PRN

To access the Print Facility, use the #PRN transaction. The Print Facility allows you to print MANTIS entities in both online and batch environments.

FUNCTION=PRINT	MANTIS Print Facility	YY/MM/DD
XREF= NONE		MM:HH:SS
SHOWPASS= YES		
Programs	1	DL/I Call Profiles 13
Screens	2	DL/I Segment Layouts 14
File Profiles	3	
Prompters	4	
Interfaces	5	
Total File Views	6	
External File Views ...	7	
Logical Views	8	
Scenarios	9	
		Terminate this facility .. Cancel
User Name :	EXAMPLES	:
User Password :		:
Starting Name :		:
Ending Name :		:
		:
		:

For information on using the Print Facility, refer to *MANTIS Facilities, OS/390, VSE/ESA*, P39-5001.

Prompter Design Facility #PRO

To access the Prompter Design Facility, use the #PRO transaction. The Prompter Design Facility allows you to create and save new prompters and to update and maintain existing prompters.

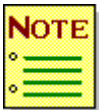
```

M A N T I S

Prompter Design Facility

Create or update a prompter ..... 1
Set tabs ..... 2
Library functions ..... 3
Directory of prompters ..... 4
Display completed design ..... 5
Print completed design ..... 6
Terminate this facility ..... CANCEL

: :
```



Cincom supplies #PRO for compatibility with MANTIS. To define help for AD/Advantage transactions, use #HLP. To define help for AD/Advantage fields, use #DHLP.

For information on using the Prompter Design Facility:

- ◆ **Mainframe users:** Refer to *MANTIS Program Design and Editing, OS/390, VSE/ESA*, P39-5013.
- ◆ **UNIX and OpenVMS users:** Refer to *MANTIS Facilities, OpenVMS/UNIX*, P39-1300.
- ◆ **PC users:** Refer to *MANTIS for Windows Facilities Reference Manual*, P19-2301.

Query Report Writer #QRW

To access the Query Report Writer, use the #QRW transaction. The Query Report Writer allows you to generate reports from VSAM files.

```
Welcome to SPECTRA
==>

SELECT ONE OF THE TOPICS BELOW.  TYPE THE NUMBER AND PRESS ENTER.

New users should first read the User's Guide.

For assistance, type Help at the command line (==>) and press ENTER.

  1  CENTRAL FILES           Lists the central files available to you.
  2  PERSONAL FILES         Lists your personal files.
  3  PROCESSES              Lists processes available to you.
  4  USER'S GUIDE          Provides a complete guide to SPECTRA.


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1=HELP 2=TOP 3=END 4=EX 5=SPLIT 6=INPUT 7=P 8=NEXT 9=MARK 10=GET 11=MOVE 12=PUT
```

For information on using the Query Report Writer, refer to *SPECTRA User's Guide*, P26-95611. (QRW is another name for SPECTRA).

```
M A N T I S
```

Program Selection

Specify the name of the required program :

: :

(CANCEL to terminate)

- ◆ **Mainframe users:** Refer to *MANTIS Facilities, OS/390, VSE/ESA*, P39-5001.
- ◆ **UNIX and OpenVMS users:** Refer to the information on “Run a program” (rather than “Run a Program by Name”) in *MANTIS Facilities, OpenVMS/UNIX*, P39-1300.
- ◆ **PC users:** Refer to *MANTIS for Windows Facilities Reference Manual*, P19-2301.

Screen Design Facility #SCR

To access the Screen Design Facility, use the #SCR transaction. The Screen Design Facility allows you to create and save new screen designs and to update and maintain existing screen designs.

```

M A N T I S

Screen Design Facility

Create or update a screen ..... 1
Update field specifications ..... 2
List field specifications ..... 3
Update repeat specifications ..... 4
List repeat specifications ..... 5
Display completed design ..... 6
Library functions ..... 7
Directory of screens ..... 8
Print completed design ..... 9
Terminate this facility ..... CANCEL

: :
```

For information on using the Screen Design Facility:

- ◆ **Mainframe users:** Refer to *MANTIS Facilities, OS/390, VSE/ESA*, P39-5001.
- ◆ **UNIX and OpenVMS users:** Refer to *MANTIS Facilities, OpenVMS/UNIX*, P39-1300.
- ◆ **PC users:** Refer to *MANTIS for Windows Facilities Reference Manual*, P19-2301.

TOTAL File View Design Facility #PDM

To access the TOTAL File View Design Facility, use the #PDM transaction. The TOTAL File View Design Facility allows you to create, maintain, and view PDM file views.

M A N T I S

TOTAL File View Design Facility

```

Create or update views ..... 1
Update view layout ..... 2
Library functions ..... 3
Directory of views ..... 4
Print completed view ..... 5
List allowed TOTAL files ..... 6
Terminate this facility ..... CANCEL

```

: :

For information on using the TOTAL File View Design Facility:

- ◆ **Mainframe users:** Refer to *MANTIS Facilities, OS/390, VSE/ESA*, P39-5001.
- ◆ **UNIX and OpenVMS users:** Refer to *MANTIS Facilities, OpenVMS/UNIX*, P39-1300.
- ◆ **PC users:** Refer to *MANTIS for Windows Facilities Reference Manual*, P19-2301.

Transfer Facility #XFR

To access the Transfer Facility, access the #XFR transaction. The Transfer Facility allows you to transport entities between MANTIS systems running on the same platform.

To transport entities between MANTIS systems running on different platforms, use the #UEF transaction. For information about #UEF, see “Universal Export Facility #UEF” on page 319.

Transfer FacilityYY/MM/DD
HH:MM:SS

Transfer file name : CSOT :
Bin : :
Password : :

Create a new bin 1
Copy from library to bin 2
Copy from bin to library 3
Delete from bin 4
List contents of bin 5
Change password for bin 6
Directory of bins 7
Turn print on/off 8
Help 9

Delete entire bin 12

Exit facility CANCEL

: :

For information on the Transfer Facility:

- ◆ **Mainframe users:** Refer to *MANTIS Facilities, OS/390, VSE/ESA*, P39-5001.
- ◆ **UNIX and OpenVMS users:** Refer to *MANTIS Facilities, OpenVMS/UNIX*, P39-1300.
- ◆ **PC users:** Refer to *MANTIS for Windows Facilities Reference Manual*, P19-2301.

Universal Export Facility #UEF

To access the Universal Export Facility, use the #UEF transaction. The Universal Export Facility allows you to transport entities between MANTIS systems running on either the same or different platforms.

```

M A N T I S

UNIVERSAL EXPORT FACILITY

DIRECTION (IMP/EXP) :      :      ADD/REPLACE (A/R) : A :
FILE NAME : MASTER      : WITH DATA (Y/N) : N :
SELECTION :      :      DIRECTORY (Y/N) : N :
CREATE/APPEND (C/A) : A :

SEL  TYPE OF ENTITY
:   : ALL
:   : SCREEN
:   : PROGRAM
:   : INTERNAL FILE
:   : PROMPTER
:   : EXTERNAL FILE
:   : INTERFACE
:   : SCENARIO
:   : TOTAL

F4=VIEW LOG

```

For information on using the Universal Export Facility:

- ◆ **Mainframe users:** Refer to *MANTIS Facilities, OS/390, VSE/ESA*, P39-5001.
- ◆ **UNIX and OpenVMS users:** Refer to *MANTIS Facilities, OpenVMS/UNIX*, P39-1300.
- ◆ **PC users:** Refer to *MANTIS for Windows Facilities Reference Manual*, P19-2301.

A

Transactions listed by product function

Reference the following table to find transactions listed by product function (e.g., administration, edit, and MANTIS functions). For each function, the table provides the following:

- ◆ Transaction ID.
- ◆ Name of the program that the transaction defines.
- ◆ Transaction description.
- ◆ Optional parameters that you can pass to the transaction.
- ◆ The section where you can find complete information about the transaction.

Administration transactions

Trans-ID	Program name	Description	Optional parameters	See
#DEF	VPF:ADV_EDT_DEFAULTS	Edit Generation Defaults		*
#MIGDIC	VPF:ADV_MIG_DICT	Migrate Dictionary		*
#PARM	VPF:ADV_EDT_PARM	Edit System Parameters		*
#REL	CASE:CASE_SHOW_VERSIONS	Show Release Details		"AD/Advantage components #REL" on page 215

CASE integration

Trans-ID	Program name	Description	Optional parameters	See
#CINT	CASE:CASE_UPLOAD_MENU	Case Integration		"Case Integration Facility #CINT" on page 300
#EINT	CASE:EXC_MENU	Excelsior Integration		"External File View Design Facility #EXT" on page 307
#IINT	CASE:IEW_MENU	IEW/ADW Integration		"IEW/ADW Integration Facility (PC only) #IINT" on page 309

*For more information, refer to *MANTIS Administration, OS/390, VSE/ESA*, P39-5005.

Edit transactions

Trans-ID	Program name	Description	Optional parameters	See
#AUTH	VPF:ADV_EDT_AUTH	Edit Transaction Authorizations	<i>Trans-id</i>	*
#DDEF	VPF:ADV_EDT_DOMDEF	Edit Domain Definitions	<i>domain-id</i>	"Domain Definitions Screen #DDEF" on page 125
#DEBUG	VPF:ADV_EDT_DEBUG	Debug Program Parameters		"Debug program parameters #DEBUG" on page 185
#DHLP	VPF:ADV_EDT_DOMHLP	Edit Domain Help Information	<i>domain-id, language-id</i>	"Domain help information #DHLP" on page 136
#GROUP	VPF:ADV_EDT_GROUP	Edit User Groups	<i>Group-id</i>	*
#HLP	VPF:ADV_EDT_HELP	Edit Transaction Help	<i>language-id, trans-id</i>	"Transaction-level help #HLP" on page 177
#ID	VPF:ADV_EDT_USER	Edit Personal IDs	<i>personal-id</i>	*
#MENU	VPF:ADV_EDT_MENU	Edit Menu Definitions	<i>menu-id</i>	"Step 7: Add the transaction to a menu #MENU" on page 116

*For more information, refer to *MANTIS Administration, OS/390, VSE/ESA*, P39-5005.

Trans-ID	Program name	Description	Optional parameters	See
#MSG	VPF:ADV_EDT_MESS	Edit User Messages	<i>language-id, subsystem-id</i> <i>message-no</i>	*
#PFK	VPF:ADV_EDT_PFK	Edit Function-Keys and Commands	<i>language-id</i>	*
#PTYPE	VPF:ADV_EDT_PTYPE	Edit Prototype Definitions	<i>trans-id</i>	"Prototype definitions #PTYPE" on page 149
#SUB	VPF:ADV_EDT_SUBSYST	Edit Subsystems	<i>subsystem-id</i>	*

*For more information, refer to *MANTIS Administration, OS/390, VSE/ESA*, P39-5005.

Entity transformer functions

Trans-ID	Program name	Description	Optional parameters	See
#SYNONYM	VPF:ADV_EDT_SYNONYM	Edit Synonyms	<i>synonym-id</i>	"Synonyms #SYNONYM" on page 156
#TRN	VPF:ADV_EDT_TRAN	Edit Transaction Definitions	<i>trans-id</i>	"Transaction definitions #TRN" on page 159
#DATA	VPF:ADV_LST_DATA	List Data Views in the Scratchpad	<i>entity-name</i>	"Data views in the scratchpad #DATA" on page 191
#ET	CASE:CASE_SELECT	Entity Transformers		"Entity Transformers #ET" on page 305
#ETI	CASE:CASE_INITIALIZE	Initialize Scratchpad		"Initializing the Entity Transformer Scratchpad #ETI" on page 297
#TEXTL	VPF:ADV_LST_TEXT	List Text in the Scratchpad	<i>entity-name</i>	"Text in the scratchpad #TEXTL" on page 194

Generation transactions

Trans-ID	Program name	Description	Optional parameters	See
#DEF	VPF:ADV_EDT_DEFAULTS	Edit Generation Parameters		*
#GENDEF	VPF:ADV_GNT_SCREEN_DEFAULTS	Generate Default Values for Screens	<i>screen-name</i>	"Default values for screens #GENDEF" on page 274
#GENIND	VPF:ADV_GNT_INDEX	Generate a Program for Index files	<i>trans-id</i>	"Programs for index files #GENIND" on page 275
#GENSQL	VPF:ADV_GNT_SQL	Generate a SQL Program	<i>trans-id</i>	"SQL program #GENSQL" on page 278

*For more information, refer to *MANTIS Administration, OS/390, VSE/ESA*, P39-5005.

List transactions

Trans-ID	Program name	Description	Optional parameters	See
#AUTHL	VPF:ADV_LST_AUTH	List Transaction Authorizations	<i>trans-id</i>	“Transaction authorizations #AUTHL” on page 260
#DDEFL	VPF:ADV_LST_DOMDEF	List Domain Definitions	<i>domain-id</i>	“Domain definitions #DDEFL” on page 186
#DHLPL	VPF:ADV_LST_DOMHLP	List Domain Help Information	<i>domain-id, language-id</i>	“Domain help information #DHLPL” on page 189
#EXTL	VPF:ADV_LST_EXT	List External Files	<i>file-name</i>	“External files #EXTL” on page 196
#GROUPL	VPF:ADV_LST_GROUP	List User Groups	<i>group-id</i>	“User groups defined in AD/Advantage #GROUPL” on page 268
#HLPL	VPF:ADV_LST_HELP	List Transaction Help	<i>language-id, trans-id</i>	“Transaction help #HLPL” on page 266
#IDL	VPF:ADV_LST_USER	List Personal IDs	<i>user-id</i>	“Personal ID definitions #IDL” on page 209
#INFL	VPF:ADV_LST_IF	List Interfaces	<i>interface-name</i>	“Interfaces #INFL” on page 202

Trans-ID	Program name	Description	Optional parameters	See
#INTL	VPF:ADV_LST_INT	List Internal Files	<i>file-name</i>	"Internal files #INTL" on page 199
#MENUL	VPF:ADV_LST_MENU	List Menu Definitions	<i>menu-id</i>	"Menu definitions #MENUL" on page 206
#MSGL	VPF:ADV_LST_MESS	List User Messages	<i>language-id, subsystem-id, message-no</i>	"User messages #MSGL" on page 270
#PRGL	VPF:ADV_LST_PRG	List Programs	<i>program-name</i>	"Programs #PRGL" on page 212
#SCRL	VPF:ADV_LST_SCR	List Screens	<i>screen-name</i>	"Screens #SCRL" on page 218
#SUBL	VPF:ADV_LST_SUBSYST	List Subsystems	<i>subsystem-id</i>	*
#TRNL	VPF:ADV_LST_TRAN	List Transaction Definitions	<i>trans-id</i>	"Transaction definitions #TRNL" on page 263

*For more information, refer to *MANTIS Administration, OS/390, VSE/ESA*, P39-5005.

Print transactions

Trans-ID	Program name	Description	Optional parameters	See
#AUTHP	VPF:ADV_PRN_AUTH	Print authorizations		"Authorizations #AUTHP" on page 295
#GROUPP	VPF:ADV_PRN_GROUP	Print User Groups		"User groups #GROUPP" on page 291
#HLPP	VPF:ADV_PRN_HELP	Print Transaction Help		"Transaction-level help #HLPP" on page 289
#IDP	VPF:ADV_PRN_USER	Print Personal IDs		"Personal IDs #IDP" on page 285
#MENUP	VPF:ADV_PRN_MENU	Print Menu Definitions		"Menu definitions #MENUP" on page 283
#MSGP	VPF:ADV_PRN_MESS	Print User Messages		"User messages #MSGP" on page 293
#PFKP	VPF:ADV_PRN_PFK	Print Keys and Commands		*
#TRNP	VPF:ADV_PRN_TRAN	Print Transaction Definitions		"Transaction records #TRNP" on page 287

*For more information, refer to *MANTIS Administration, OS/390, VSE/ESA*, P39-5005.

Report transactions

Trans-ID	Program name	Description	Optional parameters	See
#ACCL1	VPF:ADV_LST_ACC1	Audit Trail Information		*
#ACCL2	VPF:ADV_LST_ACC2	Most Used AD/A Transactions		*
#ACCL3	VPF:ADV_LST_ACC3	AD/A Transactions daily base		*
#UGROUP	VPF:ADV_LST_UGROUP	List Personal-IDs contained in a Group		"Personal IDs contained in a group #UGROUP" on page 208

*For more information, refer to *MANTIS Administration, OS/390, VSE/ESA*, P39-5005.

Various transactions

Trans-ID	Program name	Description	Optional parameters	See
#HOME	VPF:ADV_SYS_HOME	Call Users Start Transaction		"Accessing your start transaction #HOME" on page 53
#SIGNON	VPF:ADV_SYS_SWITCH	Sign On to AD/Advantage	<i>user-id, password, transid.key1.keyn</i>	"Signing on from within AD/Advantage #SIGNON" on page 32
#UPDCHAR	VPF:ADV_SYS_CHANGE_CHAR	Change System Character		*

*For more information, refer to *MANTIS Administration, OS/390, VSE/ESA*, P39-5005.

MANTIS transactions

Trans-ID	Program name	Description	Optional parameters	See
#CEF	VPF:ADOP_PRGM_MENU	Component Engineering Facility		"Component Engineering Facility #CEF" on page 299
#DIR	CONTROL:DIRECTORY	List/Print MANTIS Directory		"Directory Facility #DIR" on page 302
#DLI	CONTROL:DLI_PROFILE	Edit DLI Views		"DL/I Call Profile Design Facility #DLI" on page 304
#DPRO	CONTROL:DISPLAY	Display a Prompter		"Prompter Display Facility #DPRO" on page 303
#EEPRADD	CONTROL:POPULATE_EEPR_ALL_USERS	Add EEPR Records All Users		
#EXT	CONTROL:ACCESS	Edit External Files		"External File View Design Facility #EXT" on page 307

Trans-ID	Program name	Description	Optional parameters	See
#INF	CONTROL:INTERFACE	Edit Interfaces		"Interface Design Facility #INF" on page 310
#INT	CONTROL:SETS	Edit Internal Files		"File Design Facility #INT" on page 308
#LANG	CONTROL:SHOW_LANGUAGE_CODES	Display Language Codes		
#MSTART	MASTER:START_FACILITY	MANTIS Start Facility		"MANTIS Facility Selection Menu #MSTART" on page 298
#PRG	CONTROL:PROGRAM_DESIGN	Edit Programs		"Program Design Facility #PRG" on page 311
#PRN	CONTROL:MPFMMENU	Print Facility		"Print Facility (Mainframe)" on page 312
#PRO	CONTROL:PROMPTER	Edit Prompters		"Prompter Design Facility #PRO" on page 313

Trans-ID	Program name	Description	Optional parameters	See
#QRW	MASTER:RUN_SPECTRA	Query Report Writer		"Query Report Writer #QRW" on page 314
#RUN	CONTROL:RUN_A_PROGRAM	Run a Program		"Run a program by name #RUN" on page 315
#SCR	CONTROL:SCREEN_DESIGN	Edit Screens		"Screen Design Facility #SCR" on page 316
#PDM	CONTROL:ULTRA_VIEW	Edit Total Views		"TOTAL File View Design Facility #PDM" on page 317
#UEF	CONTROL:EXP_MAIN_SCB	Universal Export Facility		"Universal Export Facility #UEF" on page 319
#XFR	CONTROL:TRANSFER	Transfer Facility		"Transfer Facility #XFR" on page 318
#XREF	CSI_XREF:MENU	Cross Reference Facility		"Cross Reference Facility #XREF" on page 301

*For more information, refer to *MANTIS Administration, OS/390, VSE/ESA*, P39-5005.

SQL database transactions

Trans-ID	Program name	Description	Optional parameters	See
#QCOLUMN	VPF:ADV_TLS_COLUMN	Column List	<i>column-name</i>	"Column list #QCOLUMN" on page 248
#QDB	VPF:ADV_TLS_DATABASE	SQL Database List	<i>database-name</i>	"Database definitions #QDB" on page 221
#QDOM	VPF:ADV_TLS_DOMAIN	Domain Report	<i>domain-name</i>	"Domain values #QDOM" on page 234
#QDOML	VPF:ADV_TLS_DOMLIST	Domain List	<i>domain-name</i>	"Domain definitions in the SQL database #QDOML" on page 230
#QDOMREF	VPF:ADV_TLS_DOMREF	Domain References	<i>domain-name</i>	"Domain references #QDOMREF" on page 233
#QINDEX	VPF:ADV_TLS_INDEX	Index Display	<i>table-name, (creator)</i>	"Index information #QINDEX" on page 237
#QINDEXL	VPF:ADV_TLS_INDEXLIST	Index List	<i>table-name</i>	"Index definitions #QINDEXL" on page 235
#QISTAT	VPF:ADV_TLS_ISTAT	Index Statistics	<i>index-name, (table-name)</i>	"Index statistics #QISTAT" on page 239
#QFK	VPF:ADV_TLS_LINKS	Secondary Links	<i>table-name, (creator)</i>	"Secondary links (or foreign keys) #QFK" on page 244

Trans-ID	Program name	Description	Optional parameters	See
#QFKL	VPF:ADV_TLS_LINKLIST	Foreign Key List	<i>table-name</i> , (creator)	"List of foreign keys #QFKL" on page 240
#QFKP	VPF:ADV_TLS_LINKP	Primary Links	<i>table-name</i> , (creator)	"Primary links #QFKP" on page 242
#QPLAN	VPF:ADV_TLS_PLAN	DB2 Plans	<i>table-name</i> , (creator)	"Plan definitions #QPLAN" on page 226
#QPLAND	VPF:ADV_TLS_PLANDEP	Plan Dependencies	<i>plan-name</i> , (creator)	"Plan dependencies #QPLAND" on page 228
#QSTATS	VPF:ADV_TLS_STATS	Table Statistics	<i>table-name</i> , (creator)	"Table statistics #QSTATS" on page 250
#QSTGRP	VPF:TLS_STGROUP?	SQL Storage Group List	<i>storage-group</i>	"Storage group definitions #QSTGRP" on page 223
#QSYN	VPF:ADV_TLS_SYNONYM	Synonym List	<i>synonym-name</i>	"Synonyms #QSYN" on page 246
#QTABLE	VPF:ADV_TLS_TABLE	Table and View List	<i>table-name</i>	"Table and view definitions #QTABLE" on page 251
#QUSER	VPF:ADV_TLS_USER	User Display	<i>user-name</i>	"User information #QUSER" on page 256

Trans-ID	Program name	Description	Optional parameters	See
#QUSERL	VPF:ADV_TLS_USERLIST	User List	<i>user-name</i>	"User definitions #QUSERL" on page 254
#QVER	VPF:ADV_TLS_VERSION	Display Supra Version		"SUPRA #QVER" on page 217
#QVOL	VPF:TLS_VOLUME?	SQL Volume List	<i>volume-ID</i>	"Volume definitions for each storage group #QVOL" on page 225
#QVIEW	VPF:ADV_TLS_VIEW	View Definition	<i>view-name, (creator)</i>	"View definitions #QVIEW" on page 253

Menu transactions

Trans-ID	Program name	Description	Optional parameters
#ADMIN	VPF:ADV_MNU	Administration Functions	
#EDIT	VPF:ADV_MNU	Edit Functions	
#GEN	VPF:ADV_MNU	Generation Functions	
#LIST	VPF:ADV_MNU	List Functions	
#MSYS	VPF:ADV_MNU	Main Selection for Administrator	
#SYS	VPF:ADV_MNU	Main Selection for Developer	
#OPTIONS	VPF:ADV_MNU	Options	
#PRINT	VPF:ADV_MNU	Print Functions	
#REPORTS	VPF:ADV_MNU	Reports	
#UMENU	VPF:ADV_MNU	User menu	
#UTILITY	VPF:ADV_MNU	Utilities	



See “[Navigating with menus](#)” on page 37 for more information about menu transactions.

B

System parameter formats

This chapter shows the formats for system function calls and for the SYST parameter.

Call formats for system functions

The following shows call formats for AD/Advantage system functions.

ADV_SYS_CHK_IF_ENTITY_EXIST

ADV_SYST_CHK_IF_ENTITY_EXIST checks whether a MANTIS entity exists.

Example

```
PROGRAM PROG( "VPF:ADV_SYS_CHK_IF_ENTITY_EXIST", " " )
DO PROG( LIBNAME, ENTITYNAME, ENTITYTYPE, PSW, ENTITY_EXIST )
```

<i>lib-name</i>	Text 32	The name of the MANTIS user. If it's empty, the current user will be searched.
<i>entity-name</i>	Text 32	The name of the MANTIS entity. A <i>libname</i> can be contained separated by a colon.
<i>entity-type</i>	Text 10	The entity type to be searched for: PROG USER SCREEN FILE, SETS, INTERNAL EXTERNAL, ACCESS INTERFACE
<i>PSW</i>	Text 16	Set to the Insert Password of a File View.
<i>ENTITY_EXIST</i>	small	Set to true when entity was found, otherwise it is set to false.

ADV_SYS_DRIVER

ADV_SYS_DRIVER controls application calls.

Example

```
PROGRAM PROG( "VPF:ADV_SYS_DRIVER", " " )
DO PROG( SYST, USRT, USRN, USRK, MAP, COMMAND_LINE, COMMAND, OK )
```

<i>SYST</i>	Text 11*254	Contains all system relevant information.
<i>USRT</i>	?	Alphanumeric and
<i>USRN</i>	?	Numeric user parameter that is not used by the system.
<i>USRK</i>	?	Alphanumeric user parameter that is not used by the system.
<i>MAP</i>	SCREEN	The screen that had been conversed in the user application.
<i>COMMAND_LINE</i>	Text 40	The input line in the header screen.
<i>COMMAND</i>	Text 8	After the driver found out the command that had been issued, it is put into the COMMAND field. Only this field is validated by the user application to determine what the user did.
<i>OK</i>	small	Boolean Operator from the user application that states if the last command was successful.

ADV_SYS_HLP

ADV_SYS_HLP displays help information at the field or screen level.

Example

```
PROGRAM PROG( "VPF:ADV_SYS_HLP", " " )  
DO PROG( SYST, USRT, USRN, USRK, MAP, FIELDNAME, FIELD, COMMAND )
```

<i>SYST</i>	Text 11*254	Table with system information.
<i>USRT</i>	Text	User variables.
<i>USRN</i>	Numeric	User variables.
<i>USRK</i>	User defined	User variables.
<i>MAP</i>	Screen	The main screen of an application.
<i>FIELDNAME</i>	Text 32	Contains the name of the requested field.
<i>FIELD</i>	Text or Num	The requested field itself
<i>COMMAND</i>	Text 8	Contains either HELP or EXHLP.

ADV_SYS_MESSAGE

ADV_SYS_MESSAGE reads a message from the message file.

Example

```
PROGRAM PROG( "VPF:ADV_SYS_MESSAGE," )
DO  PROG( SYST,MSGNO,MSGFILL,MSGTEXT )
```

<i>SYST</i>	Text 11*254	Table with system information.
<i>MSGNO</i>	Text 3	Message identifier.
<i>MSGFILL</i>	Text x*y	A table of entries that are put into the message text where a special character is found. The number of entries is not limited.
<i>MSGTEXT</i>	Text 71	The message text that is passed back to the user application. Passing NONUM in MSGTEXT to the Message Handler indicates that Messages are not prefixed with the Message Number.

ADV_SYS_TEST

ADV_SYS_TEST validates a field against the Dictionary.

Example

```
PROGRAM PROG( "VPF:ADV_SYS_TEST", "" )  
DO PROG( SYST, USRT, USRN, USRK, MAP, FIELDNAME, FIELD, OK )
```

<i>SYST</i>	Text 11*254	Table with system information.
<i>USRT</i>	?	Alphanumeric user-defined parameter.
<i>USRN</i>	?	Numeric user-defined parameter.
<i>USRK</i>	?	Alphanumeric user-defined parameter.
<i>MAP</i>	Screen	The main screen of an application.
<i>FIELDNAME</i>	Text 32	Contains the name of the requested field.
<i>FIELD</i>	Text or Num	The requested field itself.
<i>OK</i>	Small	Set to true if no error was found, else it is set to false.

ADV_SIGN_ON

ADV_SIGN_ON controls sign-on to AD/Advantage.

Example

```
TEXT NAME( 32 ), CLEARANCE( 32 ), PARAMETER( 80 )  
NAME=personal id  
CLEARANCE=password  
PARAMETER=start transaction  
CHAIN "VPF:ADV_SIGN_ON", NAME, CLEARANCE, PARAMETER
```

SYST parameter format

The following table shows the format of the system parameter SYST. SYST stores all system information:

Row	From	To	Description
1	1	254	Global Commands
2	1	254	Global PF-Key settings
3	1	254	Transaction-dependent synonyms
4	1	20	Attribute Definition (#PARM)
4	21	21	Character to separate keys from command
4	22	24	Terminal size (Number of rows)
4	25	27	Transaction's Language
4	28	30	System Language
4	31	33	User's Language
4	34	40	System Environment (PC, UNIX, IBM, VMS)
4	41	85	End-,Fwd- and Bwd-Keys as descriptive Text
4	86	88	Subsystem ID of current Transaction
4	89	89	Y, if Keywords <<kw>> are kept in generated Program as comments
4	90	98	Select Transaction id when selecting records in a List transaction
4	99	99	Y if the user is able to modify help information (#USER)
4	100	109	Actual date in the format of #PARM
4	110	110	Y, when validation is done in one pass
4	111	112	Size (rows) of user header screen
4	113	114	Size (rows) of system header screen
4	115	117	Subsystem ID of System Transaction
4	118	118	special character for system transactions
4	119	120	Last menu selection
4	121	121	Y if current is a system transaction

Row	From	To	Description
4	123	133	Command line
4	134	134	Line command for Selection
4	135	135	Line command for Deletion
4	136	136	Line command for Positioning (not used)
4	137	137	Line command for Updates
4	138	138	Y, if global transaction logging
4	139	139	Y, if global command logging (not used)
4	140	140	Y, when Delete operations have to be confirmed
4	141	141	No. of Keys in SYST(11,1,150)
4	142	180	Current program
4	181	183	RCM, when CEF is installed
4	184	186	DOG, when ET is installed
4	187	187	Y, when transaction is read-only
4	188	188	Y, when EXIT can stop AD/A
4	189	189	Line command for Inserts
4	190	190	Line command for Printing
4	191	191	Y, when a transaction is called from within a program
4	192	192	Y, when system language for transaction
4	193	193	Global line command for Selecting
4	194	194	Global line command for Deleting
4	195	195	Global line command for Positioning
4	196	196	Global line command for Updating
4	197	197	Global line command for Inserting
4	198	198	Y, when transaction authorization is used
4	199	199	Y, when user menus can be used
4	200	207	Users start ID
4	208	233	Not used

Row	From	To	Description
4	234	234	Y, when synonyms can be used
4	235	235	Y, when Tracing Program Functions
4	236	236	Y, when CUA style menus are in use
4	237	237	Comment character
4	238	238	Hash character
4	239	239	Decimal point
4	240	242	Number of Rows in USRN
4	243	245	Number of Rows in USRT
4	246	248	Number of Columns in USRT
4	249	251	Number of Rows in USRK
4	252	254	Number of Columns in USRK
5	1	16	Personal ID of user
5	17	24	Password of person
5	25	25	Type of program (A, 3, 4)
5	26	33	Current command
5	34	39	PF-Key—Exit Command
5	40	45	PF-Key—Forward Command
5	46	51	PF-Key—Backward Command
5	52	57	PF-Key—Help Command
5	58	63	PF-Key—Cancel Command
5	64	65	Position within array to be checked by Validation Handlers
5	66	66	Y if selected by cursor
5	67	74	Current transaction id
5	75	82	Last menu transaction
5	83	88	PF-Key—EXHLP Command
5	89	98	Uppercase Special Characters
5	99	108	Lowercase Special Characters

Row	From	To	Description
5	109	109	Y, when GET PRIOR and GET LAST is supported
5	110	136	SQL Table name of current application
5	137	138	Display Column for Screens
5	139	141	Language of last message
5	142	144	Subsystem of last message
5	145	147	Message number of last message
5	148	150	Display column for screens (3-digit field)
5	151	230	Transaction title (Memo Indicator(*) on first Position
5	231	254	Not used
6	1	254	Transaction path
7	1	80	Transaction specific Synonyms displayed in Trailer Screen
7	81	160	Transaction specific F-Keys displayed in Trailer Screen
7	161	169	Group ID 1
7	170	178	Group ID 2
7	179	187	Group ID 3
7	188	196	Group ID 4
7	197	205	Group ID 5
7	206	214	Group ID 6
7	215	223	Group ID 7
7	224	232	Group ID 8
7	233	241	Group ID 9
7	242	250	Group ID 10
7	251	251	Y, when all fields in an application will be validated against DD
7	252	252	Y, calls to Validation Handler are replaced against Inline Code
7	253	253	Y, when Notification of Memos
7	254	254	Y, when executed in Program Editor
8	1	254	Global synonym settings

Row	From	To	Description
9	1	16	Printer ID
9	17	24	Kill command from #PARM
9	25	44	Terminal name
9	45	94	Contents of the Userdata field in #TRN
9	95	104	Date format
9	105	254	Not used
10	1	16	Current SQL Superdba
10	17	32	Current Superdba psw
10	33	62	Current SQL database name
10	63	68	Current SQL type: SUPRA DB2 DBM or SQLDS
10	69	84	Current application user for SQL
10	85	100	Current password for application user
10	101	116	Global application user from #PARM
10	117	132	Global password of appl user from #PARM
10	133	138	Global DB type from #PARM
10	139	168	Global DB name from #PARM
10	169	254	Not used
11	1	150	Max. 5 Keys (30 Char) for next transaction
11	151	231	Error message
11	232	254	Not used

C

Using AD/Advantage with DL/I

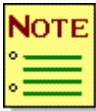
This chapter explains which DL/I entities are required in order to use AD/Advantage with DL/I. It also explains how to run the DL/I generator.

DL/I entities required by MANTIS DL/I

Step 1. In order to run AD/Advantage with MANTIS DL/I, you must set up DL/I segment layouts for all segments that are required for the application.

Step 2. Set up a new-style interface for each segment you want to generate from, with the first two fields being FUNCTION and PROFILE. Then, create all the data fields and then the special fields (DLI_PSBNME, DLI_PCBNUM, DLI_STATUS, DLI_KFBARE, DLI_KFBLEN, DLI_RETSEG, DLI_SEGLEV, and DLI_SENSEG).

The Generator generates from this interface layout. The interface name should be the same as the segment name layout.



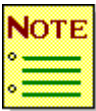
The recommended length for DLI_KFBARE is at least 80 characters.

Step 3. Set up the following call profiles for each segment by using the Design Call Profiles option of the DL/I View Design:



Do not use the Design Unqualified Call Profiles.

- ◆ A call profile without any fields in the call profile search list. (The naming recommendation is *interface name* suffixed by *_U* because this is an unqualified call.) The generated program uses this call profile when it executes a FIRST command.
- ◆ A call profile with all the key fields specified with *equal* in the search list. (The naming recommendation is *interface name* suffixed by *_Q* because this is a fully qualified call.) The generated program uses this call profile when it executes INSERT, UPDATE and DELETE commands.
- ◆ A call profile with all the key fields specified with *greater than* and *equal* in the search list. (The naming recommendation is *interface name* suffixed by *_P*.) The generated program uses this call profile when it executes a FORWARD command with modified key fields.

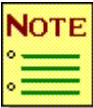


The DL/I Generator supports DL/I secondary key access.

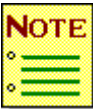
Running the DL/I generator

Step 1. You can set up a single, list and mixed transactions as per VSAM, except you specify DLI as the entity type and you specify the DLI interface name instead of the VSAM view name. In the user data field of the transaction definition, you specify the following nine parameters separated by commas:

Parameter	Default
PSB name	No default
PCB number	01
Call profile unqualified	Interface name suffixed with _U
Call profile >=	Interface name suffixed with _P
Call profile qualified	Interface name suffixed with _Q
Second PCB number	01
Second call profile unqualified	Second interface suffixed with _U
Second call profile >=	Second interface suffixed with _P
Second call profile qualified	Second interface suffixed with _Q



Because the user data field is only 50 characters long, it is a good idea to use defaults whenever possible.

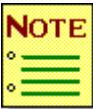


Mixed transactions allow generation from DL/I parent and child segments.

Step 2. From the #TRN transaction, enter the GEN function, which displays the #GENIND transaction.

Step 3. The #GENIND always displays the pop-up field selection list. Specify S in the Selection field for the data fields you require.

In the K field, specify a number 1–9 for the keys that are for the interface. The default is the first data field in the interface.



The #GENIND stops you from specifying the select all fields option. To use all fields, you must select them in the field list window.

Index

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